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How does the Portrayal of Smoking in the Fashion Media Influence Consumer's Purchasing Intentions?

by

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Abstract

Background

Smoking and e-cigarette use is prominent within the lives of young people and still causing issues, such as health problems, within society. Although declining, smoking has seen a comeback in fashion in recent years after being prominent in runway shows as props to portray emotions and characteristics for collections. This is promoted further through social media and the growing acceptance of smoking, and more recently vaping, in films and other forms of media. Despite its growing proximity to fashion, there are no current studies simultaneously looking at smoking and e-cigarette use within a fashion context. Therefore, this study aims to explore the effect of smoking representation and portrayal in the fashion media, and how it influences consumer purchase intentions.

Methods

This study was conducted using an all female sample of 18-25 year olds. Overall, 64 participants were recruited for this research. They were required to fill out a Qualtrics survey detailing demographic questions about their smoking and vaping habits. Additionally, a photo task was undertaken using images of garments with and without a cigarette present. The data was then analysed, and inferential statistics were conducted.

Results

This study explored five hypotheses investigating the effects of own smoking and vaping behaviours on the liking and intention to buy garments presented in images with or without cigarettes. Additionally, friend group and family smoking and vaping behaviours were also considered. Furthermore, time spent viewing the different images was explored.

Discussion and Conclusion

The results of this study suggested that there were no significant effects for any of the five hypotheses tested. Understanding this provided the basis for improvements that could be made if future research on the topic was conducted.

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List of Abbreviations

OHID – Office for Health Improvement and Disparities

ONS – Office of National Statistics

PHE – Public Health England

WHO – World Health Organisation

Statement of Originality

I, *Sophie Bix*, certify that:

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- No section of this assignment has been plagiarised.
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S Bix

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This journey has been incredibly rewarding but not without its challenges.

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I have learnt a lot over this process and am grateful for the experience. I look forward to what the future holds.

Introduction

Tobacco kills over 8 million people a year worldwide, with around 1.3 million being non-smokers exposed to second-hand smoke. Cigarettes are the most common form of tobacco use worldwide; however, all forms are harmful. Therefore, there is no safe level of exposure (WHO, 2023).

Smoking is the largest cause of preventable death in England (NHS, 2024). In 2019, there was an estimated 74,600 deaths attributed to smoking in the United Kingdom (UK) (NHS, 2024), with it being responsible for more than 55,000 cancer deaths (Warnock, 2023). Around 94% of smokers recognise smoking as a risk factor for cancer (Bramley, 2024). As a result, smoking is the leading cause of health inequalities (OHID, 2022). Despite this smoking has been less popular in recent years, with the lowest proportion of smokers recorded in 2023 compared to 2011 (ONS, 2024). However, there are recent claims that smoking is now ‘back into fashion’ due to its previous embodiment of the cool and glamorous celebrity lifestyle (Bramley, 2024). This suggests that the representation of smoking in the fashion media can be seen as a form of nostalgia, returning to the trend of Y2K (Petter, 2024).

Smoking and fashion have been described as the ‘controversial duo’ (Diet Prada, 2025), with there being an increased romanticisation of smoking on screens and runways. For example, the account ‘cigfluencers’ has over 57k followers and curates pictures of celebrities and influencers smoking (Petter, 2024). Similarly, following Charli XCX’s most recent album, a ‘brat summer’ propelled the image of smoking with the concept being a “pack of cigs, a Bic lighter and a strappy white top with no bra” (Rodgers, 2024). This suggests the influence of smoking within fashion, with trends helping to glamorise it. This is also seen in movies where smoking is used as a character description, instantly signalling that a character is cool whilst creating a level of intimacy (Ford, 2023). In 2024,

more than 30 films were released that featured smoking (Mohammed, 2024), and with this, nine out of the ten films nominated for the Oscars, in the same year, included some form of smoking imagery. As a result, there has been a surge in the on-screen tobacco imagery shown on popular streaming services, especially for those between 15 and 24. Currently, 40% of all movies containing tobacco depictions have been rated appropriate for young people (Truth Initiative, 2024). This suggests the number of young people depictions of smoking can reach. Following this there are specific examples of smoking within fashion, with cigarettes being used as props. For example, in Edward Crutchley's fall 2024 ready-to-wear show, models walked the runway with unlit cigarettes in their mouths (Leitch, 2024). Similarly, Aaron Esh [AW24] welcomed guests with a glass bowl full of Marlboro Golds and champagne (Hoste et al., 2024). Therefore, this suggests that cigarettes are not just trending within fashion but are also being used to curate an image of glamour and bring back a sense of 'Old Hollywood'.

However, smoking is not the only presence in the media, vaping is also on the rise. E-cigarettes have been available since 2004 but did not become popular in the UK until 2011 (PHE, 2020). Due to a rapid increase in popularity, e-cigarette usage grew by more than 400% between 2012 and 2023 (Gov.UK, 2024). E-cigarettes or vapes are seen as a more elegant alternative to cigarettes. Being customisable, they can easily match an individual's style in terms of colours, flavours, sizes and shapes (Ourculture, 2022). With this level of individuality, e-cigarettes made their fashion show debut in 2016 (Johnson, 2016). For example, designer Henry Holland collaborated with Vype for the House of Holland Spring 2019 collection to create neck pouches, handbags and body harnesses for e-cigarettes (Bobila, 2019). This trend can also be seen in the luxury fashion market with Miansai creating 18-karat solid gold vape cases. This design is based on old vintage Cartier lighters and was created to be a conversation piece (Bobila, 2019). Therefore, like cigarettes, e-cigarettes are also prominent in the fashion industry.

The terms e-cigarette and vape are used interchangeably throughout this paper. An e-cigarette creates an aerosol ‘vapour’ by rapidly heating a customisable liquid unlike the typical combustion of traditional cigarettes (Famiglietti et al., 2021). Vaping releases nicotine through heating an e-liquid, unlike smoking which releases nicotine by burning tobacco (NHS, 2024). Additionally, it is suggested that young people prefer the term ‘vape’ over ‘e-cigarette’ (Brown et al., 2020).

The purpose of this study is to understand the effects of smoking imagery in the fashion media. This is based on the current literature and that there are no current studies looking simultaneously at smoking and e-cigarette use in a fashion context. From this, the aim of this study is to explore the effect of smoking representation and portrayal in the fashion media, and how it influences consumer purchase intentions. The study does not aim to assess whether individuals will pick up smoking but rather how they react to the presence or not of a cigarette within the presented stimuli. This will be achieved conducting a study using Qualtrics. A sample of females, aged 18-25 will be required to complete an online survey answering questions about smoking and vaping habits. Participants will be shown images of outfits with and without models holding cigarettes and will further be asked how they feel about the clothing and whether would buy the garments shown. Additionally, the time spent looking at each image will be recorded and analysed.

The introduction is the first part of this paper, and will be followed by the literature review, which will go into more depth about the topic. Next, the methods section will describe in detail what the participants had to complete and how the data was analysed. This will be followed by the results section, which explores the raw findings of the survey. Lastly, the discussion will explore the findings of the survey in more detail, examining the strengths and weaknesses of the study, alongside any future implications.

Literature Review

Tobacco is the deadliest commercially available product in England (Global and Public Health, 2017). As of 2023, around six million people aged 18 years and over smoked cigarettes in the UK (ONS, 2024). Gilbert (2007) found that most people begin smoking in their adolescent years, with young women starting to smoke earlier than young men. The younger an adolescent begins smoking, the more likely they are to become a regular smoker and, therefore, the less likely they are to quit (Gilbert, 2007). Furthermore, in Italy smoking was highest amongst young women (Amos, 2005). Until the first study connecting smoking and lung cancer development in the 1950s, smoking was considered as not harmful to an individual's health (Huszka et al., 2014). As a result, cigarettes had a big presence in society, especially in the media. Seen as a fashionable prop in the external portrayal of identity, cigarettes are used to portray glamorous and desirable images. Additionally fear of rejection and alienation from peer and social groups are also prominent factors for a positive association (Gilbert, 2007).

Many smokers begin smoking as teenagers, becoming addicted before fully understanding the health risks (Global and Public Health, 2017). However, despite this, a significant part of adolescent smoking can be classed as experimental and does not necessarily lead to addiction (Brynin, 2002). Individuals may choose to smoke or continue smoking for multiple reasons, such as boredom and pleasure. However, one of the most prominent reasons is social acceptance (Ho, 2007). For example, if an individual chose to not smoke in a social setting, they would need to provide an excuse, and some may be seen as more legitimate than others. Additionally, smoking can also be used as a social tool, such as bridging the gaps during a conversation (Fry et al., 2010). Therefore, this further suggests that cigarettes play a complex social role in the lives of young adults,

potentially making it more difficult to avoid as the social factors become more ingrained in the peer group.

Social smoking refers to smoking primarily restricted to social situations, such as parties or bars, where other individuals are also smoking. This helps to suggest why adolescence is a vulnerable period for smoking initiation and the potential transition to heavier smoking (Lisha et al., 2019). Many young adults, smokers or non-smokers, see smoking as socially acceptable (Watson et al., 2003). Due to the nature of the social context, alcohol consumption often effects the prevalence of social smoking within a group. Although prominent with smoking, there is also a common pairing of alcohol consumption and e-cigarette use (Famiglietti et al., 2021). This use increases due to the mutual cravings and expectancies of the pairing, with social e-cigarette users having a higher alcohol use than regular e-cigarette users (Hershberger et al., 2016). This suggests that social situations and peer groups can influence an individual's smoking and e-cigarette habits, therefore, maintaining the prominence of cigarettes as a social tool in the lives of young adults.

Looking at social learning theory suggests that individuals develop identities based on the social groups they affiliate with. The more strongly they identify with the group, the more likely they are to exhibit the group's behaviours (Moran & Sussman, 2014). Social influence is defined as the process used by individuals to alter their opinions and beliefs surrounding behaviours expressed or observed within a group setting (Moussaid et al., 2013). This is one of the most important predictors for both direct and indirect smoking behaviour, with parents and peers having been found to be the most relevant role models for adolescents (Vitoria et al., 2011). Peer socialisation refers to the effect of existing social relationships on how individuals form social norms, which can influence behaviour (Simons-Morton & Farhat, 2010). This is supported but the notion that individuals are more likely to engage in smoking behaviour if they believe it will achieve a particular outcome

that they value (Higgins & Conner, 2003). Therefore, this suggests that the smoking and vaping behaviours of an individual's friend group or family could influence their perception of the behaviour, relating personality traits to a desired outcome.

Around 5.1 million adults aged 16 years and over currently use an e-cigarette daily or occasionally. This use was highest between those aged 16-24 (ONS, 2024). With e-cigarette use, experimental or occasional use is the most common and is approved of in most social situations with peers (Brown et al., 2020), with more than 2 million high school students using e-cigarettes in 2023 (Truth Initiative, 2024). Additionally, there is the potential for e-cigarettes to be used as a gateway product for young adults (Famiglietti et al., 2021). For example, regardless of a young adults' intentions, those using e-cigarettes are 4.6 times more likely to use cigarettes and become tobacco smokers one year later (Owotomo et al., 2020). Following this, the concept of dual use; the use of cigarettes and a non-combustible product, such as an e-cigarette, is common (Famiglietti et al., 2021). E-cigarettes are popular for several reasons. For example, the cost of e-cigarettes is substantially lower than that of cigarettes (Al-Hamdani & Manly, 2021). There are lots of device options for consumers (Famiglietti et al., 2021), unlike cigarettes, suggesting the importance of customisability of e-cigarettes. This personalisation allows individuals to customise them much like a phone case or bag (Jones & Salzman, 2020). The trend-like nature of e-cigarettes makes them an important fashion accessory and further suggests how e-cigarette use, and exposure is embedded in the everyday lives of young adults (Coen et al., 2023). Therefore, this suggests that the appealing nature of e-cigarettes, especially within a fashion context, provides them with a greater prominence over traditional cigarettes for young adults.

Fashion is a fundamental component of a person's perception within a social context, influencing first impressions within a group (Hester & Hehman, 2023). This suggests that individuals seen as having a desired trait will be more influential in the

perception of that particular behaviour. Individuals use clothing to define and communicate their social identities to others (Burroughs, 1992), and the idea of ‘smoker cool’ has been seen as a factor influencing the perception of smoking behaviour in teenagers (Plumridge et al., 2002). Therefore, this suggests that feelings towards garments or outfits presented with a cigarette, if the individual is perceived as ‘cool’, could have a greater impact than those presented without a cigarette as the smoking behaviour influences the perception of the individual as having a desirable outcome.

Exposure to cigarettes and e-cigarettes is maintained through advertising and social media. The advertising for e-cigarettes is heavily aimed at adolescents (Jones & Salzman, 2020), with the most appealing cigarette advertisements containing scenes of fun and exciting activities (Moran et al., 2020). A study by Primack et al. (2008), using participants aged 14-18, found that those with a higher exposure to films and music were more likely to be smokers compared to those with a higher exposure to books, reporting a daily 8.6 hours of media exposure. This suggests the importance of social media and advertisements in the lives of young adults. Further studies support this, suggesting that social media depictions of tobacco use can predict future smoking tendencies (Depue et al., 2015). As a result, the media acts as a source of observational learning by providing role models that young adults may seek to emulate. Providing direct reinforcement for smoking or not smoking, the media provides new information about smoking directly to impressionable audiences (Wakefield et al., 2009). This suggests that social media and the advertisements it endorses can have an effect on the behaviours of viewers, especially young adults who do not fully understand the implications of smoking versus not smoking. Therefore, media literacy and exposure could be a valuable tool in understanding the susceptibility of young adults to smoking media.

The impact of social media is supported by the increasing exposure of smoking and vaping in movies. For example, a study conducted in 2022 using the most-watched Netflix

original content among adults aged 18-24 from 2020, found that out of 125 titles, 16 had e-cigarette related content. Additionally, 13 of the titles showed at least one character holding an e-cigarette (Allem et al., 2022). This is supported by the Master Settlement Agreement (MSA) which restricts the placement of cigarettes in movies but does not have an impact on e-cigarettes (Allem et al., 2022). In some movies smoking is used to portray characteristics. This is significant as characteristics, such as being 'cool,' is important to young adults and integral to the image they present to their peers (Watson et al., 2003). A more positive association with these smoking characteristics leads to a higher prediction of smoking acceptability (McCool et al., 2005). For example, in Watson et al.'s (2003) study, smoking was rated more positively if the person featured in the scene was seen as more physically attractive, with a heavy emphasis on the person's style and the clothes they were wearing. Therefore, placement in movie scenes and use of smoking for character portrayal has a large influence on young adults' perceptions of smoking behaviours.

In addition to external influences, such as social media, research suggests that there are genetic predispositions for starting and maintaining smoking behaviours. Most individuals begin smoking in their teenage years, with the majority engaging in the behaviour to fit in with their peers or as an act of rebellion against their parents (Folan et al., 2017). Similarly, individuals who smoke often have family or friends who also smoke (Aslam et al., 2024). Additionally, a study conducted in 1992, found that there were seven pre-existing characteristics more likely to be found amongst those who started smoking. Three key characteristics identified were that individuals would be more likely to smoke if they were female, had siblings that smoked or had parents that smoked (Goddard, 1992). Therefore, this suggests that there are certain factors that would unconsciously influence an individual to engaging in smoking behaviour. However, the genetic and environmental factors that influence the initiation of regular smoking differ from those that influence the maintenance of the behaviour (Audrain-McGovern et al., 2004). For example, despite

family smoking habits potentially influencing an individual's engagement in the behaviour, smoking maintenance would be related to changes in their beliefs about the dangers of smoking (Brynin, 2002). Therefore, although family background can suggest a predisposition to smoking some of key explanatory factors in take-up are temporary, with an individual's psychological state being an adaptive response to their immediate concerns and feelings.

Addressing the literature, the rationale for this study is as follows. Research suggests that women are more likely to start smoking earlier compared to men (Gilbert, 2007) and more likely to engage in smoking behaviours in general (Goddard, 1992). However, smoking is no longer the main behaviour to consider, with e-cigarette use growing, especially in social situations (Brown et al., 2020). E-cigarette use is seen to be the most popular between 16 and 24 year olds (ONS, 2024), suggesting this group is the most susceptible. Additionally, dual use of cigarettes and e-cigarettes is common (Famiglietti et al., 2021) and should be considered. Furthermore, there is a gap in the literature, with no current studies simultaneously looking at smoking and e-cigarette use, in a fashion context. Therefore, this study aims to explore the effect of smoking representation and portrayal in the fashion media, and how it influences consumer purchase intentions. This will be achieved using an all female sample of 18-25 years olds.

Hypotheses

Furthermore, the hypotheses are as follows:

H1: There will be an effect of own smoking and vaping behaviour on liking the garments which are presented with or without a cigarette.

H2: There will be an effect of own smoking and vaping behaviour on the intention to purchase the garments which are presented with or without a cigarette.

H3.1: There will be an effect on the garment purchase intention based on the smoking and vaping habits of immediate family members.

H3.2: There will be an effect on the garment purchase intention based on friend group smoking and vaping habits.

H4: There will be an effect of own smoking and vaping behaviour on the time spent viewing images of garments presented with or without a cigarette.

Methods

Participants

Overall, 94 participants engaged in the survey and clicked on the anonymous online survey link. However, only 64 of the responses were complete and could be included in the data analysis. A priori power analysis was conducted using G*Power 3.1.9.7 (Faul et al., 2007) for the minimum sample size estimation. It was determined that to achieve 80% power for detecting a medium effect, at a significance criterion of $\alpha = 0.05$, $N = 44$ was required. Therefore, the sample size obtained of 64 participants was adequate to test the study hypotheses.

The sample consisted of 64 females, aged 18-24 ($M = 20.69$, $SD = 2.05$). The most common age recorded was 21 (26.6%), followed by 18 (18.8%) and 20 (17.2%). The least common was 24 (3.1%). Of the sample, 62 participants were currently residing in the UK (96.9%), one participant was residing in the United States (1.6%) and one participant was residing in Canada (1.6%). (See Appendix E).

Participants were recruited through convenience and snowball sampling, with an anonymous link posted on social media that led participants to the Qualtrics survey. The advertisement used can be seen at the end of Appendix C.

Materials

Demographics survey

A demographics questionnaire was used to collect basic information about participants, including their smoking and e-cigarette use habits. Participants were asked whether they smoked and were given options as to what best described their smoking habits (e.g. ‘I have never smoked’ to ‘I smoke regularly’). Participants were then asked

whether anyone in their immediate family smoked and whether anyone in their friend group smoked. Lastly, participants were asked the extent to which they had ever felt pressured into smoking a cigarette (e.g. ‘never’ to ‘very often’). These questions were then mirrored and used to ask participants about their e-cigarette use. Furthermore, if participants selected that they did use an e-cigarette, they were presented with two additional questions asking whether participants use an e-cigarette instead of smoking cigarettes or use an e-cigarette as well as smoking cigarettes. All questions can be seen at the end of Appendix C.

Experimental stimuli

In total 24 images were used in this study. Participants were shown a random selection of twelve of these images, six with a cigarette present and six without a cigarette.

The images shown to participants were of models wearing outfits and were taken from the sites of eight well-known clothing brands. These were already pre-existing within the public domain and were chosen to provide a varied perspective of the fashion style and trends of the time. Each image was duplicated, with one image being kept in the original state. Using PowerPoint, an image of a cigarette was added into the hand of the model to create the second image (see Appendix D).

Experimental setup

The survey was set up as follows; participants were exposed to a random selection of twelve smoking and non-smoking images. After each outfit, participants were asked to rate how they felt about the garments and whether they would purchase the pieces displayed in the image, (‘How do you feel about this outfit?’ and ‘How likely are you to buy the garments displayed in this image?’). After seeing all twelve images, participants were

asked to respond to two open-ended questions asking how the presence of cigarettes had influenced them liking the outfit shown in the image and their intention to purchase the garments shown ('How does the portrayal of smoking influence your feelings about the garment?' and 'How does the portrait of smoking influence your purchase intentions for the garments?'). Additionally, for each image, the time spent on the page was recorded to compare whether participants had spent more or less time looking at images with or without cigarettes.

Secondly, participants were asked a series of demographic questions, for example, their age and whether anyone in their close social network smokes or uses e-cigarettes. Once this information was provided participants were directed to the debrief page.

Procedure

Ethical clearance was obtained from University of the Arts London's (UAL) ethics committee prior to the surveys distribution. Once approved an anonymous link was used to collect data via Qualtrics. After participants clicked the link within the advertisement shown on social media, they were taken to the participants' information sheet. Having read this, participants were asked to consent to participating in the study before proceeding with the experiment. The survey consisted of questions surrounding twelve images which were randomly shown to the participants and a demographic questionnaire. After completing the survey participants were presented with a debrief sheet containing the aims and benefits of the study, including additional information around the research topic and support available. Furthermore, the researcher's email address and the email address of the ethics board were provided for use by participants if they had any additional queries. After reading through the debriefing sheet, participants were done with the survey. It was advised that the survey would take approximately 7-10 minutes to complete. On average,

the survey took 6.84 minutes to complete (*M* = 409.22 seconds, *SD* = 376.02). (See Appendices C and E).

Data analysis

Data Preparation

The data was exported from Qualtrics and into the Statistical Package for the Social Sciences (SPSS) version 30 for analysis. The data was screened, and incomplete responses were removed from the dataset.

The variable of 'own smoking and vaping behaviour' was constructed based on whether individuals just smoked, just vaped or both ('something') or whether they did not either smoke or vape ('nothing'). Similarly, the variable of 'friend group smoking and vaping behaviour' was categorised based on whether individuals within the participants friend group smoked, just vaped or both ('something') or whether they did not smoke or vape ('nothing'). Furthermore, the variable of 'family smoking and vaping behaviour' was constructed based on whether members of the participants immediate family (parent(s), sibling(s) spouse/partner) smoked or used an e-cigarette or whether they did not.

The variables used to assess the liking of the garments presented in images with or without a cigarette were constructed using the mean scores from the question 'How do you feel about this outfit?' This was done for both images with and without cigarettes respectively. Similarly, the variables used to assess the intention to purchase the garments presented in images with or without cigarettes were constructed from the mean scores from the question 'How likely are you to buy the garments displayed in this image?'. This was done for both images with and without cigarettes.

The internal reliability of the data was assessed using Cronbach's Alpha (Cronbach, 1951). Descriptive statistics were assessed for all of the variables, including the mean and

standard deviation. Normality disruptions were assessed using Shapiro-Wilk tests. Additionally, Levene's tests were conducted for variables that were normally distributed.

Hypotheses Testing

To test research hypothesis one; there will be an effect of own smoking and vaping behaviour on liking the garments which are presented with or without a cigarette, a two-way mixed Analysis of Variance (ANOVA) was conducted. The first factor was a within-participant factor of own smoking and vaping behaviour that had two levels ('something' which refers to some form of either smoking or e-cigarette use and 'nothing' which refers to no smoking or e-cigarette use). The second factor was a between-participant factor of the image presented to participants with two levels (presence of a cigarette or not). Furthermore, the dependent variable for hypothesis one was the liking of the garments presented in the images. The assumptions for further post-hoc testing were not met so were not conducted.

To test hypothesis two; there will be an effect of own smoking and vaping behaviour on the intention to purchase the garments which are presented with or without a cigarette, a two-way mixed ANOVA was also run. The first factor was a within-participant factor of own smoking and vaping behaviour that had two levels ('something' which refers to some form of either smoking or e-cigarette use and 'nothing' which refers to no smoking or e-cigarette use). The second factor was a between-participant factor of the image presented to participants with two levels (presence of a cigarette or not). Additionally, the dependent variable for hypothesis two was the intention to buy the garments shown in the images. The assumptions for further post-hoc testing were not met so were not conducted.

Similarly, for hypothesis 3.1; there will be an effect on the garment purchase intention based on family smoking and vaping habits, a two-way mixed ANOVA was conducted. The first factor was a within-participant factor of family smoking and vaping

behaviour that had two levels (whether a member of the participants immediate family smokes and/or vapes and whether they do not). The second factor was a between-participant factor of the image presented to participants with two levels (presence of a cigarette or not). The dependent variable for this hypothesis was the intention to buy the garments shown in the images. The assumptions for further post-hoc testing were not met so were not conducted.

Additionally, to test hypothesis 3.2; there will be an effect on the garment purchase intention based on friend group smoking and vaping habits, a two-way mixed ANOVA was used. The first factor was a within participant factor of friend group smoking and vaping behaviour (whether anyone in the participants friend group smokes or uses an e-cigarette and whether they do not). The second factor was a between-participant factor of the image presented to participants with two levels (presence of a cigarette or not). Furthermore, the dependent variable was also the intention to buy the garments shown in the images. The assumptions for further post-hoc testing were not met so were not conducted.

To test research hypothesis four; there will be an effect of own smoking and vaping behaviour on the time spent viewing images of garments presented with or without a cigarette, a Friedman test was used. The dependent variable for hypothesis four was the time spent viewing the images. Additionally, Bonferroni pairwise comparisons were conducted to investigate the differences in time spent viewing images with or without a cigarette and the effects of own smoking and vaping behaviour on this. Furthermore, an independent samples t-test was run to explicitly explore the effects found.

Research ethics

In line with the British Psychological Society's (BPS) and UAL ethical codes of conduct, ethical approval was gained before the survey was distributed. According to these, the study was deemed to be of minimal risk.

The participant information sheet was displayed to participants before taking part in the survey, detailing the requirements and purpose of the research and what participants would be required to complete if they chose to take part. Participants were reminded of their right to withdraw from the survey at any time by closing the browser window and that all incomplete responses would not be included in the study. Additionally, contact details of the researcher and ethics board were provided if participants had any concerns or queries about the study.

After the information sheet, participants were asked to give informed consent for their participation in the research and reminded that taking part was completely voluntary. Here, participants were reminded that the study was anonymous, and their anonymity would be maintained throughout the duration of the study as no identifying information was collected. Additionally, participants were made aware that the information was only available to the researcher and the research supervisor. Furthermore, they were informed that the data would be stored on the UAL one drive after collection and would be for 10 years before it is deleted.

Lastly, a debrief sheet was provided to participants after completing the survey questions. This reiterated the aims of the study and the potential benefits from participating in the research. It also provided further information about the research topic and what participants should do if they felt they needed any support once they had completed the survey. See Appendix C.

Results

Hypothesis 1

There will be an effect of own smoking and vaping behaviour on liking the garments which are presented with or without a cigarette.

A Shapiro-Wilk test was conducted to assess the normality of the data. It was not normally distributed across factor one; own smoking and vaping habits ($W = 0.59$, $p < 0.001$) but it was deemed as normally distributed across the second factor; liking of images of garments with a cigarette ($W = 0.98$, $p > 0.05$) and liking of images of garments without a cigarette ($W = 0.94$, $p > 0.05$). Furthermore, a Levene's test was also not significant, indicating that the assumption for the homogeneity of variances was met.

The descriptive statistics showed that the feeling towards garments in images containing cigarettes ($M = 5.70$, $SD = 1.29$, $N = 64$) was lower than the feeling towards garments shown in images without cigarettes ($M = 5.97$, $SD = 1.35$, $N = 64$). Additionally, the feelings of participants who smoked or used an e-cigarette and viewed an image with a cigarette ($M = 5.68$, $SD = 1.45$, $N = 21$) was higher than those who viewed an image with a cigarette but did not smoke or use an e-cigarette ($M = 5.70$, $SD = 1.22$, $N = 43$). Furthermore, the participants who smoked or used an e-cigarette and viewed an image without a cigarette ($M = 5.89$, $SD = 1.56$, $N = 21$) was lower than those who viewed an image without a cigarette and did not smoke or use an e-cigarette ($M = 6.00$, $SD = 1.25$, $N = 43$).

A two-way mixed ANOVA was conducted and results showed that there was no main effect of own smoking and vaping behaviour on liking the garments (F (1, 62) = 0.05, $p > 0.05$, partial $\eta^2 = 0.001$). Furthermore, there was no main effect of presentation of the garments with or without a cigarette (F (1, 62) = 2.92, $p > 0.05$, partial $\eta^2 = 0.05$). There

was also no interaction between the presentation of garments with and without cigarettes and smoking or using an e-cigarette (F (1, 62) = 0.08, p > 0.05, partial η^2 = 0.001). Therefore, the research hypothesis was not supported as individuals liked the outfits regardless of their own smoking and vaping behaviours or the presence of cigarettes. See Appendix E.

Hypothesis 2

There will be an effect of own smoking and vaping behaviour on the intention to purchase the garments which are presented with or without a cigarette.

A Shapiro-Wilk test was conducted to assess the normality of the data. It was not normally distributed across factor one; own smoking and vaping habits (W = 0.59, p < 0.001) but it was normally distributed across factor two; the purchase intention of garments shown in images with a cigarette (W = 0.99, p > 0.05), and purchase intention of garments shown in images without a cigarette (W = 0.99, p > 0.05). Furthermore, a Levene's test was also not significant, indicating that the assumption for the homogeneity of variances was met.

The descriptive statistics showed that the purchase intention towards garments in images containing cigarettes (M = 4.85, SD = 1.52, N = 64), was lower than the purchase intention for garments in images without cigarettes (M = 5.12, SD = 1.64, N = 64). The participants who viewed an image without a cigarette and smoked or used an e-cigarette had a lower purchase intention (M = 4.76, SD = 1.69, N =21) than those who viewed an image without a cigarette but did not smoke or use and e-cigarette (M = 5.29, SD = 1.64, N = 43). Additionally, the participants who smoked or used an e-cigarette and viewed an image with a cigarette (M = 4.30, SD = 1.43, N = 21) had a lower purchase intention

compared to those who viewed an image with a cigarette but did not smoke or use an e-cigarette (M = 5.11, SD = 1.51, N = 43).

A two-way mixed ANOVA was conducted and the results showed that there was no main effect of own smoking and vaping behaviour on the purchase intention of garments (F (1, 62) = 3.14, p > 0.05, partial η^2 = 0.05). There was also no main effect of the presentation of garments with or without a cigarette (F (1, 62) = 3.70, p > 0.05, partial η^2 = 0.56). Furthermore, there was no interaction between the presentation of garments with or without a cigarette and smoking or using an e-cigarette (F (1, 62) = 0.66, p > 0.05, partial η^2 = 0.01). Therefore, the research hypothesis was not supported as individual's purchase intentions was not influenced by their own smoking and vaping behaviour or the presence of cigarettes. See Appendix E.

Hypothesis 3.1

There will be an effect on the garment purchase intention based on the smoking and vaping habits of immediate family members.

This hypothesis was informed on the basis that 34 participants reported having at least one immediate family member (parent(s), sibling(s), spouse/partner) that smoked and/or used an e-cigarette.

A Shapiro-Wilk test was conducted to assess the normality of the data. It was not normally distributed across factor one; immediate family smoking and vaping habits (W = 0.64, p < 0.001) but it was normally distributed across factor two; the purchase intention of garments shown in images with a cigarette (W = 0.99, p > 0.05), and purchase intention of garments shown in images without a cigarette (W = 0.99, p > 0.05). Furthermore, a Levene's test was also not significant, indicating that the assumption for the homogeneity of variances was met.

The descriptive statistics showed that purchase intention of garments in images containing cigarettes (M = 4.85, SD = 1.52, N = 64), was lower than the purchase intention for garments in images without cigarettes (M = 5.12, SD = 1.64, N = 64). The purchase intention was higher for those who viewed an image with a cigarette and had an immediate family member who smoked or used an e-cigarette (M = 4.94, SD = 1.65, N = 34) compared to those who viewed an image with a cigarette but did not have an immediate family member who smoked or used an e-cigarette (M = 4.73, SD = 1.38, N = 30). Additionally, the purchase intention of those who viewed an image without a cigarette and did not have an immediate family member who smoked or used an e-cigarette was higher (M = 5.27, SD = 1.64, N = 30) compared to those who viewed an image without a cigarette and did have a family member who smoked or used an e-cigarette (M = 4.99, SD = 1.65, N = 34).

A two-way mixed ANOVA was conducted and the results showed that there was no main effect of the smoking and vaping habits of immediate family members on the purchase intention of garments (F (1, 62) = 0.01, p > 0.05, partial $\eta^2 < 0.01$). There was also no main effect of the presentation of garments with or without a cigarette (F (1, 62) = 3.48, p > 0.05, partial $\eta^2 = 0.05$). Furthermore, there was no interaction between presentation of garments with or without a cigarette and whether immediate family members smoked or used an e-cigarette (F (1, 62) = 2.50, p > 0.05, partial $\eta^2 = 0.04$). Therefore, the research hypothesis was not supported as purchase intention was not influenced by the smoking and vaping habits of immediate family members or the presence of cigarettes in the images shown. See Appendix E.

Hypothesis 3.2

There will be an effect on the garment purchase intention based on friend group smoking and vaping habits.

This hypothesis was informed on the basis that 24 out of 64 participants (37.5%) were either social smokers or social e-cigarette users, suggesting that friend group smoking and vaping habits are a potential factor for effecting own smoking behaviours.

A Shapiro-Wilk test was carried out to assess the normality of the data. It was not normally distributed across factor one; friend group smoking and vaping habits ($W = 0.56$, $p < 0.001$) but it was normally distributed across factor two; the purchase intention of garments shown in images with cigarettes present ($W = 0.99$, $p > 0.05$) and the purchase intention of the garments shown in images without cigarettes ($W = 0.99$, $p > 0.05$). Furthermore, a Levene's test was also not significant, indicating that the assumption for the homogeneity of variances was met.

The descriptive statistics showed that purchase intention of garments in images containing cigarettes ($M = 4.85$, $SD = 1.52$, $N = 64$), was lower than the purchase intention for garments in images without cigarettes ($M = 5.12$, $SD = 1.64$, $N = 64$). The purchase intention for garments in images with a cigarette and viewed by participants who had a friend who smoked or used an e-cigarette ($M = 4.72$, $SD = 1.59$, $N = 46$) was lower compared to those who viewed an image with a cigarette but did not have a friend who smoked or used an e-cigarette ($M = 5.15$, $SD = 1.31$, $N = 18$). Furthermore, the purchase intention of those who viewed an image without a cigarette and had a friend who smoked or used an e-cigarette ($M = 4.99$, $SD = 1.75$, $N = 46$) was lower than those who viewed an image without a cigarette and did not have a friend who smoked or used an e-cigarette ($M = 5.46$, $SD = 1.28$, $N = 18$).

A two-way mixed ANOVA was conducted and the results showed that there was no main effect on the smoking and vaping habits of friends on the purchase intention of garments (F (1, 62) = 1.26, p > 0.05, partial η^2 = 0.91). There was also no main effect of the presentation of garments with or without a cigarette (F (1, 62) = 2.66, p > 0.05, partial η^2 = 0.41). Furthermore, there was no interaction effect between presentation of garments with or without a cigarette and the smoking and vaping habits of friends (F (1, 62) = 0.03, p > 0.05, partial η^2 < 0.01). Therefore, the research hypothesis was not supported as purchase intention was not influenced by the smoking or vaping habits of friends within a friend group or the presence of cigarettes within the images shown. See Appendix E.

Hypothesis 4

There will be an effect of own smoking and vaping behaviour on the time spent viewing images of garments presented with or without a cigarette.

To assess the normality of the data a Shapiro-Wilk test was conducted. The data was found to be not normally distributed across time spent viewing images of garments presented with a cigarette (W = 0.87, p < 0.001) and the time spent viewing images of garments presented without a cigarette (W = 0.85, p < 0.001). As a result, the assumptions for conducting a parametric test were violated and a non-parametric test (Friedman test) was used.

The descriptive statistics showed that the time spent viewing the images containing a cigarette (M = 12.18, SD = 0.67, N = 64) was similar to the time spent viewing images without a cigarette (M = 12.21, SD = 5. 71, N = 64).

A Friedman test was conducted and the results showed that there was an effect of own smoking and vaping behaviour on the time spent viewing images with or without a cigarette $\chi^2(2) = 96.30$, p < 0.001. Furthermore, a pairwise comparison using a Bonferroni

correction for multiple tests, was conducted to assess the differences in the effects of own smoking and vaping behaviour on the time spent viewing images with and without a cigarette (See Figure 1). Results showed that there were effects between own smoking and vaping behaviour and looking at images with a cigarette ($p < 0.001$) and own smoking and vaping behaviour on looking at images without a cigarette ($p < 0.001$). Therefore, this suggests that own smoking and vaping behaviour does influence the time spent viewing images with or without a cigarette.

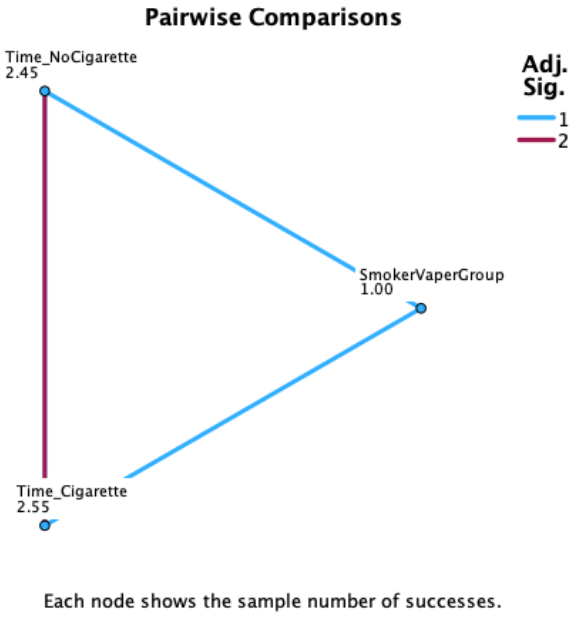


Figure 1

Graph to show pairwise comparisons between the effect of own smoking and vaping behaviour and the time spent viewing images with or without a cigarette

To explore this further an independent samples t-test was run. However, the results indicated that there was no significant difference between time spent viewing the images with a cigarette if currently smoked or used an e-cigarette ($M = 12.07$, $SD = 4.85$, $N = 21$) and if they did not smoke or use an e-cigarette ($M = 12.23$, $SD = 5.59$, $N = 43$), $t(62) =$ -

0.12, $p > 0.05$. Additionally, there was no significant difference between the time spent viewing the images without a cigarette if the individual smoked or used and e-cigarette ($M = 11.33$, $SD = 3.99$, $N = 21$) and if they did not smoke or use an e-cigarette ($M = 12.64$, $SD = 6.38$, $N = 43$), $t(62) = - 0.86$, $p > 0.05$. Therefore, this suggests that there is no significant effect between the time spent viewing images with or without a cigarette, regardless of own smoking and vaping behaviours. See Appendix E.

Conclusion

In summary, there were no significant effects found for the research hypotheses. It was suggested that there are no significant effects between own smoking and vaping behaviour and the feeling or purchase intention of garments shown in images with or without a cigarette. Additionally, there was also found to be no effect between purchase intention of garments shown with or without a cigarette and the smoking and vaping behaviours of immediate family members and friends. Furthermore, despite results suggesting there was some effect between time spent viewing images with and without cigarettes and own smoking and vaping behaviour, further tests concluded that this was not significant. Therefore, none of the research hypotheses could be supported.

Discussion

Summary of Findings

The aim of this research is to explore the effect of smoking representation and portrayal in the fashion media, and how it influences consumer purchase intentions. The results indicated that there were no significant effects between own smoking behaviour and liking or purchase intention of the garments shown in the images presented with or without a cigarette. There was no significant effect between family smoking and vaping habits and garment purchase intention for either presence of a cigarette or not. Similarly, there was no significant effect between friend group smoking and vaping habits and the intention to purchase the garments. Finally, there was no significant effect of own smoking and vaping behaviour on the time spent viewing images of garments presented with or without a cigarette.

Discussion of Hypotheses

Previous literature had suggested that individuals are more likely to engage in smoking behaviours if they believe that it will lead to a particular outcome that they value or desire (Higgins & Conner, 2003). This suggested that the associations with smoking and a desirable experience would make them more perceivable to those who smoked and less so to those who did not, as they did not perceive the behaviour in the same way. This research did not support this notion of own smoking behaviour not having a significant effect on the liking of garments that are presented in images with or without cigarettes. Further research could be conducted potentially changing the size of the cigarette shown in the image to make it more of an obvious feature as participants may not have noticed the altered image, which would be considered as a weakness of this study.

It was also suggested that own smoking behaviour did not have an effect on the intention to purchase garments which are presented with or without a cigarette. The literature suggested that fashion was a fundamental component of a person's perception within a social context, influencing first impressions within a group (Hester & Hehman, 2023). Therefore, individuals who are seen as having a desired trait will be more likely to perceive behaviours and actions that support this outcome. This would suggest that own smoking behaviour would have had an effect on garment purchases intention if they were presented with or without a cigarette, as the clothing items shown with a cigarette are more likely to be perceived by participants as having a 'smoker cool' vibe (Plumridge et al., 2002). However, this outcome was not supported by this research. In order to explore this further, 'coolness' could be defined, and specific questions could be asked as to whether individuals perceive the outfits shown as 'cool' or not and this could be used to gain a greater understanding of purchase intention using own smoking and vaping behaviour as an existing factor.

Similarly, garment purchase intention was not affected by family or friend group smoking and vaping habits. The literature suggests that individuals who smoke often have family and friends who smoke (Aslam et al., 2014) and they were more likely to smoke if siblings or parents were the immediate family members smoking (Goddard, 1992). Following social learning theory, individuals develop identities based on the social groups they affiliate with. The more strongly they identify, the more likely they are to exhibit the group behaviours (Moran & Sussman, 2014). This contrasts with the results which would suggest the friend group behaviour did not have an influence on purchase intention. For example, if a friend smoked and looked 'cool', there would be a greater chance of the individual wanting to emulate the same behaviours, such as, buying the clothes they were wearing. Therefore, this suggests that further testing would need to be carried out to

assess how family and friend group smoking and vaping behaviours impacted garment purchase intention.

Finally, there was no significant effect on the time spent viewing images of garments containing a cigarette or not, regardless of own smoking and vaping behaviours. Previous research suggested that social media and movie content containing cigarettes and e-cigarettes was widely viewed. For example, in 2020, of the most-watched Netflix original content viewed by 18-24 year olds, 16 contained e-cigarette content (Allem et al., 2020). This shows how images of cigarettes and e-cigarettes are ingrained in the everyday lives of young people, making them more subconsciously influenced by the ideas and behaviours presented. Although not significant, an effect was suggested for the time spent viewing images with or without a cigarette, therefore, further research should be conducted with a larger sample size to see if there is a significant effect.

Strengths and Weaknesses of the Study

One strength of this research is the photo task. This provided extensive data surrounding timing, whether participants liked the garments and whether they would purchase them. As each image was duplicated, one with a cigarette and one without, it was easy and effective to compare the data. This was unique to this study as all stimuli was made by the researcher which furthers supports the originality of the study.

However, despite this aspect, there were weaknesses within the research. There was a very high attrition rate for the survey, with many participants not completing all the questions or exiting the survey before giving their informed consent. Additionally, uptake for the survey was extremely low despite the weeks of outreach conducted by the researcher. The average time to complete the survey was within the 7-10 minutes originally proposed, however, a shorter time may have helped to increase participation.

Furthermore, the use of self-reporting questions around a topic such as smoking may have further limited the study, as participants may not have been completely honest about their own smoking and vaping behaviours. This could be overcome in future research by implementing a mixed methods design. For example, participants could take part in semi-structured interviews, answering questions about their own smoking and vaping behaviours and the behaviours of their immediate family members and friend group. This could then be followed up with the photo task where participants are asked to rate the images based on whether they like the garments shown and whether they would buy the items. Therefore, this could provide further insight into the impact of own smoking and vaping behaviours on the liking of and intention buy garments presented with or without a cigarette, and the impact of the smoking and vaping behaviours of friends and immediate family.

Alternatively, further research could also focus on creating a more concise questionnaire which could be done by reducing the research hypotheses, to help increase participation. This could be assessed with an initial pilot study to test the reception of the survey. For example, if further research was being conducted into the time spent viewing the images with or without a cigarette eye-tracking could be used. This could help to ascertain whether participants noticed the cigarette in the image and how long they focused on this for. Therefore, future research could benefit from further testing in the form of a pilot study or additional steps to the original process.

Implications

Following this, further research should be conducted using a larger sample size. This could also be extended to include other genders, as this was an all female study, and this would make it more generalisable to a wider proportion of the population. For example, images could be created using male models and traditionally male centred

clothing or groups of models. Additionally, as seen with this research, a shorter survey may reduce attrition rates, so further research could be conducted with more focused research hypotheses.

In the future, implications around smoking and e-cigarette use, such as new legislation, may have a greater impact on the portrayal of the behaviours within the fashion industry. For example, legislation such as the MSA, which restricts the placement of cigarettes in movies (Allem et al., 2022), could be introduced for e-cigarettes. When implemented, this could be explored using the same study design as this research, to assess the perception of smoking and e-cigarette use within a fashion context and how this can impact consumer purchase intention.

Conclusion

In conclusion, this study aimed to explore the effect of smoking representation and portrayal in the fashion media, and how it influences consumer purchase intentions. However, own smoking and vaping behaviour did not seem to have an effect on purchase intention or liking of the garments when shown in images with or without a cigarette. Additionally, family smoking habits and friend group smoking and vaping habits did not seem to have an effect on garment purchase intention either. Furthermore, own smoking and vaping behaviours did not have a significant effect on the time spent looking at images with or without a cigarette. Therefore, further research needs to be conducted within a smaller range of questions, using a larger, more representative sample size to fully assess the impact of smoking representation within the fashion media and it’s impacts on consumer purchase intention.

References

Allem, J., Van Valkenburg, S. P., Donaldson, S. I., Dormanesh, A., Kelley, T. C. & Rosenthal, E. L. (2022). E-cigarette imagery in Netflix scripted television and movies popular among young adults: A content analysis. *Addictive Behaviour Reports, 16*, 100444. https://doi.org/10.1016/j.abrep.2022.100444

Al-Hamdani, M. & Manly, E. (2021). Smoking cessation or initiation: The paradox of vaping. *Preventative Medicine Reports, 22*, 101363. https://doi.org/10.1016/j.pmedr.2021.101363

Amos, A. (2005). Smoking still in Vogue, Italian style. *Tobacco Control, 14*, 220-221. https://tobaccocontrol.bmj.com/content/14/4/220.2

Aslam, S. P., Leslie, S. W. & Morris, J. (2024). *Nicotine Addiction and Smoking: Health Effects and Interventions*. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK537066/

Audrain-McGovern, J., Lerman, C., Wileyto, P., Rodriguez, D. & Shields, P. G. (2004). Interacting effects of genetic predisposition and depression on adolescent smoking progression. *American Journal of Psychiatry, 161*(7), 1224-1230. https://doi.org/10.1176/appi.ajp.161.7.1224

Bobila, M. (2019, January, 18). *How designers are catering to these whole love Juuls and vaping.* Fashionista. Retrieved April 14, 2025, from https://fashionista.com/2019/01/fashion-juul-vaping-clothing-accessories

Bramley, E. V. (2024, August, 9). *From Charli xcx to a team GB golfer, is smoking making a comeback?*. The Guardian. Retrieved April 14, 2025, from https://www.theguardian.com/society/article/2024/aug/09/from-charli-xcx-to-a-team-gb-golfer-is-smoking-making-a-comeback

Brynin, M. (2002). Smoking behaviour: Predisposition or adaptation?. *Journal of Adolescence, 22*(5), 635-646. https://doi.org/10.1006/jado.1999.0259

Brown, R., Bauld, L., Lacy, d. E., Hallingberg, B., Maynard, O., McKell, J., Moore L. & Moore, G. (2020). A qualitative study of e-cigarette emergence and the potential for renormalisation of smoking in UK youth. *International Journal of Drug Policy, 75*, 1-9. https://doi.org/10.1016/j.drugpo.2019.11.006

Burroughs, J. W. (1992). Clothing and social identity. *Clothing and Textiles Research Journal, 11*(1), 18-23. https://doi.org/10.1177/0887302X9201100103

Coen, S. E., Ferguson, K. N., Burke, S. M., Dela Cruz, T. E., Girum, L., Guisandes Bueno, G. I., Haines-Saah, R., Iwas, T., Kandlakuti, B., Manji, A., Megarajah, P., Canales, R. S., Spencer, T., Tobin, D. & Gilliand, J. A. (2023). Teens talk vaping: A co-produced participatory study exploring teens' reflections on vaping experiences in their everyday environments. *SSM - Qualitative Research in Health, 4*, 100367. https://doi.org/10.1016/j.ssmqr.2023.100367

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16,* 297–334. https://doi.org/10.1007/BF02310555

Depue, J. B., Southwell, B. G., Betzner, A. G. & Walsh, B. M. (2015). Encoded exposure to tobacco use in social media predicts subsequent smoking behaviour. *American Journal of Health Promotion, 29*(4). https://doi.org/10.4278/ajhp.130214-ARB-69

Diet Prada. [@diet_prada]. (2025, January 2). *Fashion's favourite hobby is now banned in Milan: Outdoor smoking has been officially outlawed in the fashion capital.* [Photo]. Instagram. https://www.instagram.com/p/DEVMYhkR7UT/

Famiglietti, A., Memoli, J. W. & Khaitan, P. G. (2021). Are electronic cigarettes and vaping effective tools for smoking cessation? Limited evidence on surgical outcomes: a narrative review. *Journal of Thoracic Disease, 13*(1), 384-395. https://doi.org/10.21037/jtd-20-2529

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioural, and biomedical sciences. *Behaviour Research Methods, 39*, 175-191.

Folan, P., Spatarella, A., Jacobson, D. & Farber, H. (2017). Why do I smoke and why do I keep smoking?. *American Journal of Respiratory and Critical Care Medicine, 196*(4), 7-8. https://www.proquest.com/docview/1932072907/fulltext/328ACD16040542BBPQ/1

Ford, R. (2023, December 18). *Smoking is back in movies, Here's why.* Vanity Fair. Retrieved April 18, 2025, from https://www.vanityfair.com/hollywood/smoking-in-movies-awards-insider

Fry, G. Grogan, S. Gough, B. & Conner, M. (2010). Smoking in the lived world: How young people make sense of the social role cigarettes play in their lives. *British Journal of Social Psychology, 47*(4), 763-780. https://doi.org/10.1348/014466608X288818

Gilbert, E. (2007). Constructing 'fashionable' youth identities: Australian young women cigarette smokers. *Journal of Youth Studies, 10*(1), 1-15. https://doi.org/10.1080/13676260701196079

Global and Public Health. (2017, July). *Towards a smoke free generation: A tobacco control plan for England.* Gov.UK. Retrieved April 15, 2025, from https://assets.publishing.service.gov.uk/medi5a822dc740f0b6230269b419/Towards_a_Smoke_free_Generation_-_A_Tobacco_Control_Plan_for_England_2017-2022__2_.pdf

Goddard, E. (1992). Why children start smoking. *British Journal of Addiction, 87*(1), 17-25. https://doi.org/10.1111/j.1360-0443.1992.tb01893.x

Gov.UK. (2024, October 24). *Government crackdown on single-use vapes.* Gov.UK. Retrieved April 23, 2025, from https://www.gov.uk/government/news/government-crackdown-on-single-use-vapes

Hershberger, A. R., VanderVeen, D. J., Karyadi, K. A. & Cyders, M. A. (2016). Transitioning from cigarettes to electronic cigarettes increases alcohol consumption. *Substance Use Misuse, 51*(14), 1838-1845. https://doi.org/:10.1080/10826084.2016.1197940

Hester, N. & Hehman, E. (2023). Dress is a fundamental component of person perception. *Personality and Social Psychology Review, 27*(4), 414-433. https://doi.org/10.1177/10888683231157961

Higgins, A. & Conner, M. (2003). Understanding adolescent smoking: The role of the theory of planned behaviour and implementation intentions. *Psychology, Health & Medicine, 8*(2), 173-186. https://doi.org/10.1080/1354850031000087555

Ho, R. (2007). Why do people smoke? Motives for the maintenance of smoking behaviour and its possible cessation. *Australian Psychologist, 24*(3), 385-400. https://doi.org/10.1080/00050068908259577

Hoste, E., Cadogan, D. & McKee, C. (2024, February 23). *London fashion week AW24, these were the best bits*. Dazed. Retrieved April 14, 2025, from https://www.dazeddigital.com/fashion/article/62027/1/london-fashion-week-lfw-aw24-fw24-best-bits-aaron-esh-saul-nash-ahluwalia

Huszka, P., Józsa, L. & Ercsey, I. (2014). Is early smoking a fashion trend or a defensive mechanism? – Study on consumer behaviour among students. *Economics & Sociology, 7*(1), 142-156. https://doi.org/10.14254/2071-789X.2014/7-1/13

Johnson, N. (2016, February 3). *Vapes make their New York runway debut.* The Cut. Retrieved April 15, 2025, from https://www.thecut.com/2016/02/model-vapes-runway-general-idea.html

Jones, K. & Salzman, G. (2020). The vaping epidemic in adolescents. *Missouri Medicine, 117*(1), 56-58. https://pmc.ncbi.nlm.nih.gov/articles/PMC7023954/pdf/ms117_p0056.pdf

Leitch, L. (2024, February 16). *Edward Crutchley: Fall 2024 ready-to-wear*. Vogue. Retrieved April 12, 2025, from https://www.vogue.com/fashion-shows/fall-2024-ready-to-wear/edward-crutchley

Lisha, N. E., Delucchi, K. L., Ling, P. M. & Ramo, D. E. (2015). Prevalence and correlates of social smoking in young adults: Comparisons of behavioural and self-identified definitions. *Nicotine & Tobacco Research*, *17*(9), 1076-1084. https://doi.org/10.1093/ntr/ntu242

McCool, J. P., Cameron, L. D. & Petrie, K. J. (2005). The influence of smoking imagery on the smoking intentions of young people: Testing media interpretation model. *Journal of Adolescent Health, 36*(6), 475-485. https://doi.org/10.1016/j.jadohealth.2004.03.006

Mohammad, H. (2024, November 5). *In fashion, smoking is still for the hot and cool.* Women's Wear Daily. Retrieved April 13, 2025, from https://wwd.com/fashion-news/fashion-features/smoking-is-still-for-the-hot-and-cool-in-fashion-1236574491/

Moran, M. B., Haley, K., Czaplicki, L., Weiger, C., Strong, D. & Pierce, J. (2020). Tobacco advertising features that may contribute to product appeal among US adolescents and young adults. *Nicotine Tobacco Research, 23*(8), 1373-1381. https://doi.org/10.1093/ntr/ntaa275

Moran, M. B. & Sussman, S. (2014). Translating the link between social identity and health behaviour into effective health communication strategies: An experimental application using anti-smoking advertisements. *Health Communication, 29*(10), 1057-1066. https://doi.org/10.1080/10410236.2013.832830

Moussaid, M., Kammer, J. E., Analytis, P. P. & Neth, H. 2013. Social influence and the collective dynamics of opinion formation. *Public Library of Science, 8*(11), 78433. https://doi.org/10.1371/journal.pone.0078433

NHS. (2024, October 4). *Smoking is the largest preventable cause of death in England.* NHS Gateshead Health. Retrieved April 15, 2025, from https://www.gatesheadhealth.nhs.uk/news/smoking-is-the-largest-preventable-cause-of-death-in-england/

NHS. (2024, December 17). *Statistics on public health, England 2023.* NHS England. Retrieved April 15, 2025, from https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-public-health/2023/part-2-mortality

NHS. (2024). *Vaping myths and the facts.* Better Health. Retrieved April 15, 2025, from https://www.nhs.uk/better-health/quit-smoking/ready-to-quit-smoking/vaping-to-quit-smoking/vaping-myths-and-the-facts/

Office for Health Improvement & Disparities [OHID]. (2022, April 5). *Smoking and tobacco: Applying all our health.* Gov.UK. Retrieved April 13, 2025, from https://www.gov.uk/government/publications/smoking-and-tobacco-applying-all-our-health/smoking-and-tobacco-applying-all-our-health

Office of National Statistics [ONS]. (2024). *Adult smoking habits in the UK: 2023*. UK Statistics Authority. Retrieved April 15, 2025, from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare

Ourculture. (2022, June 27). *7 ways how fashion trends influence vape industry.* Ourculture. Retrieved April 13, 2025, from https://ourculturemag.com/2022/06/27/7-ways-how-fashion-trends-influence-vape-industry/

Owotomo, O., Stritzel, H., McCabe, S. E., Boyd, C. J. & Maslowsky, J. (2020). Smoking intention and progression from e-cigarette use to cigarette smoking. *Pediatrics, 146*(6), 1-9. https://doi.org/10.1542/peds.2020-002881

Petter, O. (2024, February 29). *Is smoking 'cool' again? Why cigarettes have been dominating on our screens and catwalks.* Independent. Retrieved April 12, 2025, from https://www.independent.co.uk/life-style/fashion/smoking-cool-fashion-saltburn-trend-b2504079.html

Plumridge. E. W., Fitzgerald, G. M. & Abel, G. M. (2002). Performing coolness: smoking refusal and adolescent identities. *Health Education Research, 17*(2), 167-179. https://doi.org/10.1093/her/17.2.167

Primack, B. A., Land, S. R. & Fine, M. J. (2008). Adolescent smoking and volume of exposure to various forms of media. *Public Health, 122*(4), 379-389. https://doi.org/10.1016/j.puhe.2007.07.022

Public Health England [PHE]. (2020, March 4). *Using electronic cigarettes in NHS mental health organisations.* Gov.UK. Retrieved April 18, 2025, from https://www.gov.uk/government/publications/e-cigarettes-use-by-patients-in-nhs-mental-health-organisations/using-electronic-cigarettes-in-nhs-mental-health-organisations

Rodgers, D. (2024, August 5). *Cig bouquets and dishevelled brats: Inside Charli XCX's star-studded birthday party.* British Vogue. Retrieved April 2, 2025, from https://www.vogue.co.uk/gallery/charli-xcx-birthday-party-album-billie-eilish-lorde

Truth Initiative. (2024, March 7). *Tobacco imagery rising in top entertainment, including among 2024 Oscar best picture nominees.* Truth Initiative. Retrieved April 13, 2025, from https://truthinitiative.org/research-resources/tobacco-pop-culture/tobacco-imagery-rising-top-entertainment-including-among

Simons-Morton, B. & Farhat, T. (2010). Recent findings on peer group influences on adolescent substance use. *Journal of Primary Prevention, 31*(4), 191-208. https://doi.org/10.1007/s10935-010-0220-x

Vitoria, P. D., Salgueiro, M. F., Silva, S. A. & Vries, H. d. (2011). Social influence, intention to smoke, and adolescent smoking behaviour longitudinal relations. *British Journal of Health Psychology, 16*(4), 779-98. https://doi.org/10.1111/j.2044-8287.2010.02014.x

Wakefield, M., Flay, B., Richter, M. & Giovino, G. (2009). Role of media in influencing trajectories of youth smoking. *Addiction, 98*(1), 79-103. https://doi.org/10.1046/j.1360-0443.98.s1.6.x

Warnock, A. (2023, May 31). *Tobacco kills one person every five minutes.* Cancer Research UK. Retrieved April 14, 2025, from https://news.cancerresearchuk.org/2023/05/31/tobacco-kills-one-person-every-five-minutes/

Watson, N. A., Clarkson, J. P. & Giles-Corti, B. (2003). Filthy or fashionable? Young people's perceptions of smoking in the media. *Health Education Research, 18*(5), 554-567. https://doi.org/10.1093/her/cyf039

World Health Organisation [WHO]. (2023, 31 July). *Tobacco.* World Health Organisation. Retrieved April 11, 2025, from https://www.who.int/news-room/fact-sheets/detail/tobacco

Appendix A: Reflective Statement

Although rewarding, writing my dissertation has been extremely challenging and without doubt, one of the hardest projects I have undertaken. With this, I am incredibly proud of myself for completing it and having it finalise the past three years of studies.

When originally asked to think about a research topic, I was told to focus on something I found interesting within current news and media. Following this, I started to browse on social media and came across a post where an individual was wearing a Barbour jacket and holding a cigarette. The person looked cool and stylish in the image, leading me to explore the portrayal of smoking within the fashion media. As evidenced within the report, several fashion shows over the past few years have utilised cigarettes, with designers using them as props on their catwalks. This urged me to want to explore the effect of smoking representation and portrayal in the fashion media, and how it influences consumer purchase intentions.

Despite my initial interest in my topic, it was hard to remain focused throughout the writing process, especially when my results were found to be not significant. With this, effective time management became even more important. I found it helpful to make lists, breaking down what I needed to do on specific days. This allowed me to feel more accomplished at the end of the day. As the deadline grew closer, I also found it helpful to create weekly plans, making it easier for me to know exactly what I should be doing on each day and the overall goal for that week. Over the last month or so of writing my dissertation I began working full-time. Although rewarding, this did make it more difficult for me maintain my motivation for completing the work I had assigned myself on time. I overcame this by splitting tasks into manageable chunks and factoring in more frequent breaks. Alongside the dissertation and working, I also wanted to maintain a certain amount

of time for social activities. Although this was reduced whilst undertaking the project, it helped me to adapt and prioritise activities so that I could make the most of my time.

This was the first large scale project I had undertaken on my own since my EPQ in year 13 and it was an adjustment from the previous group projects I had taken part in during my other years at university. Due to the scale of this project, I found it overwhelming at times. Along with making lists and planning, I also found it helpful to make initial mind maps for each section detailing what areas I wanted to include or any ideas I had. Additionally, I found it helpful to take breaks and get outside in-between times of writing. These things allowed me to manage my stress and during the times I did feel overwhelmed, I knew that I could do particular things or take more time away from the project to manage this effectively. I also started my research early in the process which was invaluable when it came to planning the sections and reducing my overall stress when it came to writing up the report because all the information was ready for me. Overall, the project has really strengthened my self-discipline and made me realise how best to frame tasks to maintain my levels of motivation.

This project has also strengthened my critical thinking skills which have been constantly developing across the last three years. Editing my own work forced me to evaluate the content and structure of the report, making tough decisions in terms of cutting and adding in sections in order to meet the word count requirements. If I was to undertake a project of a similar size again, I would spread my edits out over a couple of weeks rather than just one. I found it harder to edit sections when I had read over them multiple times in the same day so I think it would be beneficial to me to spread this out a bit more.

Following this, I also was able to learn new skills whilst undertaking this project. For example, to create the images with and without a cigarette, I needed to edit an original image to contain a cigarette. I learnt to do this on PowerPoint, cropping the image and

removing the background. Although small, I am glad that I now know how to do this as I will be able to utilise this in other projects

I chose to utilise the support available to me whilst undertaking this project. Attending the Final Major Project seminars was helpful for initial questions and a useful reminder for report writing, including APA formatting. I also attended a session with the course technician when finalising my survey on Qualtrics. Additionally, I also had some meetings with my supervisor, and I was able to keep them updated on any major milestones or problems whilst working on the project. It was again important to manage my time effectively as all of the people available for help were also busy with other commitments, so it was necessary to make sure I was prepared when we did have a meeting.

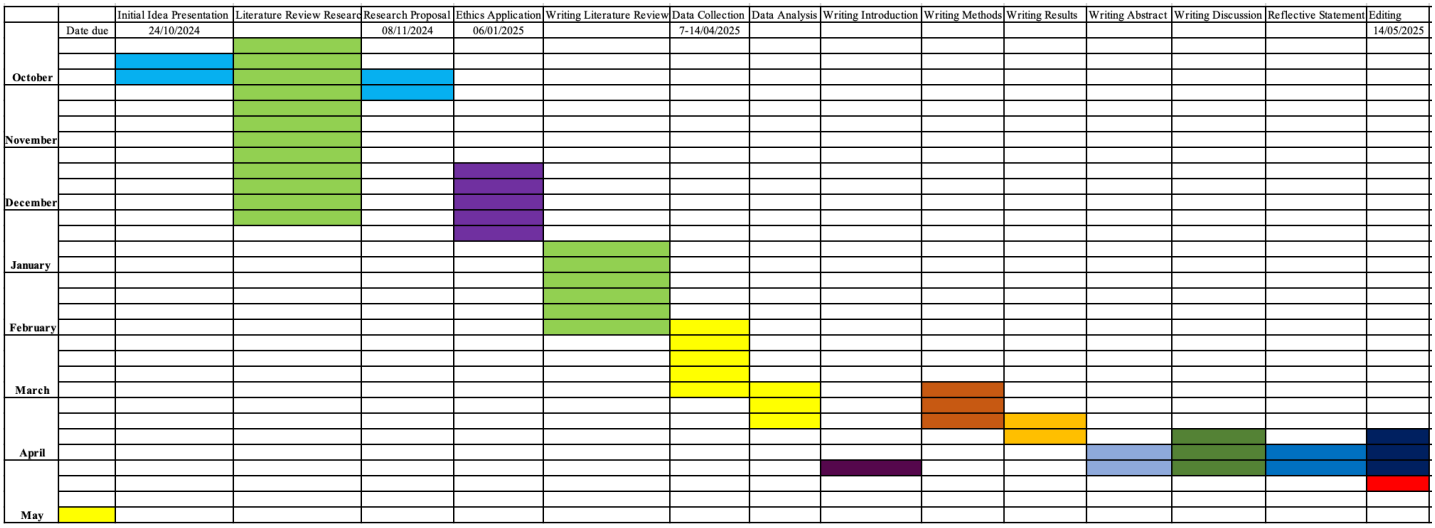
Having created Qualtrics surveys in previous years I was already familiar with the platform, much like I was already familiar with SPSS. Despite this I did need to refresh my knowledge on how to conduct certain tests, so it was useful to have my notes from previous years to help me. Initially, there was an issue with the Qualtrics whereby a slider for a likert scale question was missing, however, this was noticed and fixed quickly so did not impact the findings of the study. This reminded me of the importance of checking my work multiple times as, although easily fixed, in the moment this was a stressful situation.

Lastly, the uptake of the survey was extremely frustrating. Despite multiple ways of outreach, such as instagram, TikTok and LinkedIn, participation in the survey was low and not what I initially expected. This meant I needed to publicise my survey multiple times on the same platform and have it available for a longer period to try and increase participation. This slowed down the data collection process. Additionally, multiple responses were incomplete and could not be used in the report. This was frustrating as the perceived number of participants was higher than the actual, useable number. In the

future, I could overcome this by conducting a pilot study or reducing the number of questions asked within the survey, making it shorter and more concise.

Overall, this experience has taught me a lot, not only about this topic but about my working style. I feel I am now better equipped to motivate myself when undertaking large scale projects and more resilient to face the challenges that will undoubtedly accompany this. I hope to be able to transfer the skills I have learnt to other projects and my professional life.

Appendix B: Dissertation Time Plan



Appendix C: Approved Ethics Application

ual:

Research Ethics Approval Form – Student Research

Psychology Research Ethics Panel (PREP)

Guidance:

- **Please ensure that you have read the UAL Code of Practice on Research Ethics, UAL Code of Practice on Educational Ethics, and the BPS Code of Human Research Ethics before completing this form.**
- Please complete this form electronically. While completing it, delete all the text in green font, which is meant to guide you.
- **Section A** is to be completed by the student and Supervisor / Unit Leader.
- **Section B** is for PREP and UAL Sub-Committee use only.
- Once Section A has been completed, the form should be submitted to the relevant staff member (e.g., Unit Leader, Course Leader) by the student. Instructions on who to submit the form to will be given in each unit.
- **Incomplete applications which are missing question responses, signatures, documents for the participants (Participant Information Sheet, Consent Form, Debriefing Sheet), or relevant appendices (e.g., study advert, questionnaires, instructions, interview questions, tasks, stimuli such as images) will be returned to the student for completion. This will delay the review and approval process.**

SECTION A — TO BE COMPLETED BY THE STUDENT

Name:	Sophie Bix
College:	**London College of Fashion**
Course and year (if applicable)**:**	**BSc Psychology of Fashion, Year 3**
Unit for which this study is being conducted:	**Final Major Project**
Study title:	How does the portrayal of smoking in the fashion media influence consumer's purchasing intentions?

The UAL codes of practice set out four key areas for ethical consideration. Which one or more of these ethical principles does this application for ethical consideration relate to?	
a. An **ethics of care** is supported by the Educational Ethics Sub-Committee as a positive ethic that is the University's responsibility to foster in relation to students, educational content, educational process including material resources, and in students' relations with anyone who participates or interacts with their work.	**Yes**
b. The principle of **social justice** obliges the student to identify the risks and benefits of participation in creative or investigative practice. Any risks to persons participating should be weighed against any potential benefits – to the participants or the student, and also the wider benefits to society of the knowledge gained. As with the principle of respect for persons, there is a need to promote equality and racial justice and protect vulnerable groups.	**Yes**

c. **Respect for persons** recognises the capacity and rights of all individuals to make their own choices and decisions. It refers to the autonomy and rights to self-determination of all human beings, acknowledges their equality, dignity, freedom, and rights. An important component of this principle is the need to provide special protection to vulnerable persons, both students and in student activity involving others.	**Yes**
d. **Beneficence** is the principle of acting for the good and well-being of others. It requires students to serve the interests of others. In so doing, students comply with the principle of neither doing, nor permitting, any foreseeable harm because of creative or investigative practice. This is the principle of **non-maleficence;** it is the principle of doing no harm. The specific duties of promoting equality and good relations are assumed under these principles, as defined by the Equality Act 2010.	**Yes**

1. Please provide the rationale behind your study, including a brief literature review, the gap in the existing literature that the study will address, study aims / research questions, and hypotheses (if the study has a quantitative component). Indicate whether the study is qualitative or quantitative and what design it will use. (600 words max, excluding references)

The Office of National Statistics (ONS) reported that 11.9% of individuals aged 18 and over smoked cigarettes in the UK in 2023. Despite this being the lowest proportion of current smokers since 2011 and a 12.9% decrease from 2022 (ONS, 2024), smoking is still a prominent issue for young people. Smoking prevalence between 18–24-year-olds saw its largest reduction between 2011 and 2023 (ONS, 2024), however, it has seen an increase in portrayal in the fashion media. For example, in Edward Crutchley's 2024 fall ready-to-wear collection, models walked the runway with unlit cigarettes used as props (Leitch, 2024). Similarly, Aaron Esch welcomed guests with a glass bowl full of Marlboro Golds and champagne for his 2024 show (Hoste et al., 2024). This suggests that smoking is still commonplace within the fashion industry, using cigarettes as props to portray a certain lifestyle.

The cigarette can be viewed as a fashionable prop in the external portrayal of identity, especially in young adults. Most people begin smoking during their adolescent years, with young women often starting to smoke earlier than young men (Gilbert, 2007). The media is a large predictor of this as it plays a powerful role in influencing youth culture. Additionally, being 'cool' is important to adolescents and plays an integral part in the image they portray to their peers (Watson et al., 2003). Some of the key motivation factors in starting smoking for adolescents are seeing desirable and glamorous images of smoking in the media, and the fear of rejection or alienation from social groups (Gilbert, 2007). This suggests that peer pressure in adolescents is a significant factor in beginning smoking as desirable images of smoking in are portrayed in the media.

There are also predispositions to smoking, with there being both genetic and environmental factors influencing the initiation of regular smoking (Audrain-McGovern et al., 2004). Cigarettes play a complex social role in young people's lives, acting as a social tool in many instances. For example, using having a cigarette or taking a smoking break to fill gaps within a conversation (Fry et al., 2010). Therefore, there are genetic and

environmental factors that predispose smoking in addition to presence within media and fashion media more specifically.

Despite the slight decline in smoking between 2022 and 2023, e-cigarette use was highest between 16–24-year-olds, with 15.8% using them occasionally or daily (ONS, 2024). Exposure to vaping is embedded in adolescents' everyday lives (Coen et al., 2023), with increasing exposure in the media correlating with increased lifetime e-cigarette use (Majmundar, 2021). Therefore, e-cigarette use is an important factor to consider when examining the influence of the portrayal of smoking in the fashion media, as e-cigarette use is a growing issue especially in young people.

Currently, there is a gap in the literature, with no previous research focusing on smoking and e-cigarette use simultaneously in a fashion context. Therefore, this research aims to examine how the portrayal of smoking and e-cigarettes in a fashion media context, influences consumers' purchasing intentions.

References:

Audrain-McGovern, J., Lerman, C., Wileyto, P., Rodriguez, D. & Shields, P. G. (2004). Interacting effects of genetic predisposition and depression on adolescent smoking progression. *American Journal of Psychiatry, 161*(7), 1224-1230. https://doi.org/10.1176/appi.ajp.161.7.1224

Coen, S.E., Ferguson, K. N., Burke, S. M., Dela Cruz, T. E., Girum, L., Guisandes Bueno, G. I., Haines-Saah, R., Iwas, T., Kandlakuti, B., Manji, A., Megarajah, P., Canales, R. S., Spencer, T., Tobin, D. & Gilliand, J. A. (2023). Tenns talk vaping: A co-produced participatory study exploring teens' reflections on vaping experiences in their everyday environments. *SSM - Qualitative Research in Health, 4*, 100367. https://doi.org/10.1016/j.ssmqr.2023.100367

Fry, G. Grogan, S. Gough, B. & Conner, M. (2010). Smoking in the lived world: How young people make sense of the social role cigarettes play in their lives. *British Journal of Social Psychology, 47*(4), 763-780. https://doi.org/10.1348/014466608X288818

Gilbert, E. (2007). Constructing 'fashionable' youth identities: Australian young women cigarette smokers. *Journal of Youth Studies, 10*(1), 1-15. https://doi.org/10.1080/13676260701196079

Hoste, E., Cadogan, D. & McKee, C. (2024, February 23). *London fashion week AW24, these were the best bits*. Dazed. https://www.dazeddigital.com/fashion/article/62027/1/london-fashion-week-lfw-aw24-fw24-best-bits-aaron-esh-saul-nash-ahluwalia

Leitch, L. (2024, February 16). *Edward Crutchley: Fall 2024 ready-to-wear*. Vogue. https://www.vogue.com/fashion-shows/fall-2024-ready-to-wear/edward-crutchley

Majmundar, A., Unger, J. B., Cruz, T. B., Kirkpatrick, M. G. & Allem, J. (2021). Exposure to e-cigarette product placement in music videos is associated with vaping among young adults. *Health Education Behaviour, 6*(49), 639-646. https:doi.org/10.1177/10901981211003867

Office of National Statistics. (2024). *Adult smoking habits in the UK: 2023*. UK Statistics Authority. https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2023#:~:text=Around%206.0%20million%20people%20aged,Annual%20Population%20Survey%20(APS)

Watson, N. A, Clarkson, J. P. & Giles-Corti, B. (2003). Filthy or fashionable? Young people's perceptions of smoking in the media. *Health Education Research, 18*(5), 554-567. https://doi.org/10.1093/her/cyf039

2. Does your research involve participants?	
	No*
X	Yes
***If you answer 'No,' you do not need to complete Questions 3 to 11. Instead, please go to Question 12 and continue from there.**	

3. Who will the participants be? Please tick as appropriate.	
X	Students at University of the Arts London
	Staff at University of the Arts London
X	Other*
***If you answered 'Other' please specify below.**	
Participants will be females between the ages 18 and 25. There is no other exclusion criteria.	

4. How will participants be recruited and how many will be involved?
Participants will be recruited through the convenience and snowball sampling methods. A post will be made on the researcher's social media platforms, which will include a link to the Qualtrics survey. A minimum of 100 participants will be recruited to conduct this study. A copy of the post can be seen in Appendix 2.

5. What will participants be asked to do and for how long? Describe the entire study procedure, including the measures (e.g., questionnaires) or the interview questions that you will ask them to complete or answer.
The data will be collected via Qualtrics. After participants click the link to the Qualtrics survey from the social media ad, they will be taken to a page containing the participant information sheet. After reading, they will be transferred to the consent form. After the participants give consent, they will proceed to completing a survey. If the participant does not consent, the survey will end and a thank you message will be displayed. The survey should take approximately 7-10 minutes to complete. Demographics questions asking for participants age and whether they are smoking or using e-cigarettes and whether anyone in their close social network smokes or uses e-cigarettes.

In the next stage of the survey, participants will be randomly presented with the fashion outfits that are either modelled with the cigarette or without the cigarette. Thus, each participant will see a random selection of smoking and non-smoking images.

After participants will be asked to rate: How do you feel about this outfit? And whether they would you buy the garments displayed in image? In total each participant will be presented with 12 images. For each image the time participants spent on the page will be recorded to compare if participants spend more or less time looking at the images with or without cigarettes to test the attention differences.

After seeing the images, participants will be asked to respond to two open-ended questions asking how presence of cigarette had influenced them liking the image or their intention to purchase the garment.

All questions were generated by the researcher and an example of the images presented to participants is included in Appendix 1.

Once the final question is completed, the participant will be displayed the debrief sheet. After the debriefing page, participants will be done with the survey.

6. What potential risks to the interests of participants do you foresee and what steps will you take to minimise those risks? How will you inform participants of the risks and the steps you are taking to address them? The BPS defines risk as the 'potential physical or psychological harm, discomfort or stress to human participants that a research project may generate.' It includes risks to participants' well-being, self-esteem, social standing, values, privacy and reputation, beliefs, employment / livelihood, personal relationships, freedom, commercial interests (e.g., intellectual property), and so on.

According to the BPS and UAL codes of ethics this project is minimal risk. Participants will be informed of the purpose of the study and their right to withdraw at any point before completion. All the data collected will allow participants to remain anonymous and they will be notified of this in the participant information sheet and reminded in the debrief sheet. The study will not present any physical safety issues to participants. As the survey is anonymous there will be no negative impacts on participants' reputation, right to privacy, commercial interests or livelihood Although the study is considered a minimal risk for participants, due to the nature of the smoking questions, some participants may experience negative emotions. Those should be a short-term and not greater than those experienced in daily life. However, if those emotions persist, participants will be advised to seek help:

- Self-help resources: http://www.getselfhelp.co.uk
- How to help someone quit smoking: https://www.nhs.uk/better-health/quit-smoking/help-others-quit/how-to-help-someone-quit-smoking/
- Information on passive smoking: https://www.nhs.uk/live-well/quit-smoking/passive-smoking-protect-your-family-and-friends/

Additionally, participants can:

- Contact your local GP in the UK
- Contact a mental health specialist or general health practitioner in your country of residence
- If you are a student at UAL, consider contacting UAL counselling and health advice by emailing studenthealth@arts.ac.uk
-

All data will be stored in compliance with General Data Protection Regulation (GDPR) and the Data Protection Act 2018. Data stored on UAL-managed systems throughout the research process and will be accessed by the researcher and research supervisor. The data file will be archived by the research supervisor on a UAL-managed One Drive for 10 years. If this research is considered for publication, the data may be published in the open-access repository.

7. What potential risks do you foresee to yourself as the researcher and what steps will you take to minimise those risks? For example, does your research raise issues of personal safety for you or others involved in the project, especially if taking place outside working hours or off University premises?
The study does not pose any psychological or physical risks to the resracher than they would encounter in their normal, everyday life. Participants will be recruited through the researcher's social media and all data presented to the particpants about them will be already avaliable in the public domain. Additonally, if participants wish for any further information to be provided they will be provided with the researcher's UAL email address. Therefore, further minimisng potential risks as no personal contact details will be shared. In case there is a distress research is experiencing during the research process, the UAL student support cervises will be contacted.

8. Please attach a copy of the Participant Information Sheet, Consent Form, and Debriefing Sheet you plan to give participants.	
X	Please tick here if the Participant Information Sheet, Consent Form, and Debriefing Sheet are attached in the appendix at the end of this form.

9. Does your project involve children / minors (anyone under the age of 18) or vulnerable adults? The BPS states that vulnerable populations include 'children, persons lacking capacity, those in a dependent or unequal relationship, people with learning or communication difficulties, people in care, people in custody or on probation, people who have suffered physical or psychological trauma and people engaged in illegal activities, such as drug abuse.'	
X	No. Go to Question 10
	Yes*
***If you answer 'Yes', you may need to obtain a Disclosure and Barring Service (DBS) check and seek ethical approval from the relevant UAL ethics sub-committee. Discuss this with your Supervisor, Unit Leader, or Course Leader. Please be aware that a DBS check normally takes 4 weeks but can take longer.**	
	I confirm that I have obtained a DBS check.
	I understand that I need to go through the PREP review and the UAL ethics review process.

Please Note:
It is a presumption of academic research that, wherever possible and feasible, the information on which the research is based should be preserved, so that it can be made available to future researchers. However, the privacy of participants must be respected. Please refer to the UAL and BPS ethics codes before answering Question 10.

10. Will you be obtaining personal information (e.g., name; postal, email, or IP address; recorded images or audio; date of birth) from the participants?	
X	No. Go to Question 11
	Yes*
***If you answer 'Yes', please give details. In your response, please indicate:** Why do you need to collect personal information from participants? How will you store and use this information durin the course of your research in line with the Data Protection Act 2018 and General Data Protection Regulation (GDPR)? What parts of this information will need to be confidential? How will you ensure that no one can link participants' identity to the rest of their data? Will you exhibit or publish the information? Who will have access to the data? Will you retain information after the research is concluded? If yes, how? If information is to be destroyed, explain why this is appropriate.	

11. Will payments to participants be made?	
X	No. Go to Question 12
	Yes*
***If you answer 'Yes', please state amount and whether payment is for out-of-pocket expenses or a fee.**	

12. If the project is to receive financial support from outside the University, please give details. Include any restrictions that have been imposed on the conduct of the research by the funding body or sponsor. Both financial propriety and the protection of commercial rights are important for you, the University, and other third parties (e.g., sponsors, participants).
N/A

13. Will any restrictions be placed on the publication of results?	
X	No. Go to Question 14
	Yes*
***If you answer 'Yes', please state the nature of the restrictions (e.g., details of any confidentiality agreement).**	

Student Declaration:

15. I confirm my responsibility to deliver the project in accordance with the Code of Practice on Research Ethics and the Code of Practice on Educational Ethics of the University of the Arts London (the University), as well as the BPS Code of Human Research Ethics. In signing this form, I am also confirming that:

a) The form is accurate to the best of my knowledge and belief.

b) There is no potential material interest that may, or may appear to, impair the independence and objectivity of the researchers conducting this project.

c) I understand that I cannot start data collection until I have received ethical approval from the relevant ethics body (e.g., PREP).

d) I undertake to conduct the study as set out in this application unless deviation is agreed by the University and to comply with any conditions set out in the letter sent by the relevant ethics body (e.g., PREP).

e) I understand that, if I decide to make substantial changes to the study method (e.g., the design, participant recruitment method, procedure), I will need to submit a revised ethics form.

f) I will store data on UAL-managed systems and will follow the data protection principles at all times.

g) I understand and accept that the ethical propriety of this project may be monitored by the relevant College Research body and/or Educational Ethics Sub-Committee.

Signature of Student:	S Bix
Date *(dd/mm/yyyy):*	31/01/2025

Unit Leader or Supervisor Declaration:

16. I support this project and have reviewed and approved the current ethics application.

Name:	Dr Jekaterina Rogaten
Signature of Unit Leader or Supervisor:	
Date *(dd/mm/yyyy):*	3-2-2025

SECTION B **FOR UAL COMMITTEE USE ONLY**

Approval of Psychology Research Ethics Panel:

- The Psychology reviewers recommend that:

X	This student's Ethics Approval Form is approved as **minimal ethical risk.**
	This student's Ethics Approval Form is approved as **more than minimal ethical risk** and so will be forwarded to the University's Educational Ethics Sub-Committee for final approval.
	This student's Ethics Approval Form must be resubmitted after the student has made the **required** modifications indicated in the PREP's feedback.

Name of Reviewer 1 (Psychology Team Member / Unit Leader / Supervisor)		**Date** *(dd/mm/yyyy)*	
Name of Reviewer 2 (PREP Chair / Deputy Chair)	Dr Soljana Çili	**Date** *(dd/mm/yyyy)*	06/02/2025
Signature	**Reviewer 1**	**Reviewer 2**	Soljana Çili

Approval of University's Educational Ethics Sub-Committee (EESC):

All 'more than minimal risk' documents will be sent to EESC.

- The Educational Ethics Subcommittee (EESC) recommends that:

	This student's Ethics Approval Form is approved as **minimal ethical risk**
	This student's Ethics Approval Form is approved as **more than minimal ethical risk**
	This student's Ethics Approval Form must be resubmitted, and the following modifications should be made (see below):

Required Modifications List *(if applicable)*	1)		
Suggested Modifications List *(if applicable)*	1)		
Name		**Date** *(dd/mm/yyyy)*	

Signature *Chair of EESC*	

PARTICIPANT INFORMATION SHEET

Version 1**, Dated** 25/01/25

Study title: Portrayal of smoking in fashion

Introduction
My name is Sophie Bix, and I am a student at London College of Fashion, University of the Arts London (UAL). You are being invited to take part in the research study that looks at the portrayal of smoking in fashion advertisements. Before you decide whether you would like to take part or not, it is important that you understand what the study involves. Please read the information below carefully and ask questions if anything is not clear or you would like more information. If you are happy to take part, you will be asked to provide consent before engaging with the study.

What is the purpose of the study?
The purpose of this study is to examine how smoking is portrayed in fashion and the effects it can have on consumers.

Who can take part in this study?
This study is open to females between the ages of 18 and 25.

Do I have to take part?
Participation in this study is completely voluntary. You do not have to take part if you do not wish to.

What will I be required to do if I take part?
You will be asked to complete an online survey answering questions about your smoking and vaping habits, as well as some demographic questions. You will also be required to view some images and answer questions relating to them. It will take approximately 7-10 minutes to answer all the questions.

What are the possible disadvantages and risks of taking part?
This study does not pose any more physical or psychological risks to you than you experience in your normal, everyday life. However, some negative emotions could arise that should pass quickly. You will be, however, provided with some additional resources you can use if you need help.

What are the possible benefits of taking part?
Participating in this research, you will help build new knowledge and understand how smoking relates to fashion.

How will my information be used?
Any data obtained will be used solely for research purposes. No personal data will be collected.

You can stop taking part in the study at any time while completing it, without giving a reason, and without experiencing any detriment. You can withdraw from the study by simply closing your browser window. All incomplete responses will be deleted. It will not be possible for you to withdraw your data after you submit your responses. This is because the study is anonymous, and it is therefore impossible to identify your responses among those of other participants.

All data will be accessible to me and my research supervisor. The anonymised file containing no personal data may be analysed using specialised software on a password-protected computer. When this is the case, the data file may be stored temporarily on the password-protected computer and deleted immediately afterwards. Anonymised data will be stored on systems managed by UAL for a period of 10 years after the end of the project. If this research is considered for

publication, the anonymised data file may be deposited into an open data research repository where it will be publicly available for further research use.

You can find more information about UAL and your privacy rights at www.arts.ac.uk/privacy-information.

What will happen to the results of the study?
Results will be written up for the researcher's dissertation for the BSc (Hons) Psychology of Fashion at London College of Fashion. As the data collected will be anonymous, the dissertation will not include any information that may lead to participants' identification. The results of this study may also be presented at the conferences and published in an academic peer-review journal.

Who should I contact for further information?
If you have any questions, require more information about this study, or would like to receive a summary of the study results when they are ready, please email me, the researcher, at s.bix1120211@arts.ac.uk.

What happens if there is a problem?
This study has been approved by the Psychology Research Ethics Panel at London College of Fashion, UAL. If you have any concerns about the study, you can contact Jekaterina Rogaten at j.rogaten@fashion.arts.ac.uk. They will do their best to answer your query. If you have further concerns or wish to complain about the study, please contact researchethics@arts.ac.uk.

Thank you for reading this Information Sheet and for considering taking part in this research.

CONSENT FORM

Version 1**, Dated** 25/01/25

Study title: Portrayal of smoking in fashion
Researcher's name: Sophie Bix

Please complete this form after you have read the Participant Information Sheet and/or listened to an explanation about the research. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to participate.

If you decide to participate, please tick each of the boxes below to consent to different elements of this study. Please note that you may be deemed ineligible to participate if you do not consent to any of the elements.

Item no.	Item	Tick
1.	I confirm that I have read and understood the Participant Information Sheet for the above study. I have had the opportunity to consider the information and asked questions which have been answered satisfactorily.	
2.	I confirm that I am female and between the ages of 18 and 25.	
3.	I understand that my participation in this study is voluntary.	
4.	I understand that this study is anonymous and therefore I will **not** be able to withdraw my data after submitting them.	
5.	I understand how my data will be stored and consent to the processing of all data for the purposes explained to me.	
6.	I understand the potential disadvantages and risks of participating and the support that will be available to me should I become distressed during the course of the research.	
7.	I understand that anonymity will be maintained, and it will not be possible to identify me in any reports or publications.	
9.	I consent to my data being used in written up or published work resulting from this research.	
10.	I understand that honesty is important to the research and will do my best to answer the questions accurately and honestly.	
11.	I agree to take part in this study.	

DEBRIEFING SHEET

Version 1, **Dated** 25/01/25

Study title: Portrayal of smoking in fashion
Researcher's name: Sophie Bix
Researcher's email address: s.bix1120211@arts.ac.uk
Thank you for taking part in this study! Below is some more information about the aims of the study and what happens next.

What are the aims of this study and what are we expecting to find?
The aim of this study is to examine the portrayal of smoking in the fashion media and how this can influence consumer purchasing intentions.

What are some of the benefits that may result from this study?
This study aims to understand the influence of smoking on purchasing intentions based on its portrayal in fashion media. This will be beneficial for fashion brands to understand the influence images of smoking may have on purchasing behaviours. By taking part, participants are playing an active role in understanding how views surrounding smoking and vaping can influence behaviour. Furthermore, this research looks at whether there is any difference in how people see smoking in fashion advertisements based on whether they smoke themselves or not and on their levels of exposure to smoking in their surroundings.

Where can you find more information about this research topic?
https://psychiatryonline.org/doi/full/10.1176/appi.ajp.161.7.1224 – Paper exploring genetic and environmental factors influencing initiation and maintenance of smoking.

https://www.theguardian.com/society/2011/apr/03/smoking-health - The Guardian article looking at how smoking has re-entered the fashion scene

What should you do if you need support at the end of the study?
This study is of minimal risk. However, if any negative effects are felt by participants, the following services are available to them:

- Self-help resources: http://www.getselfhelp.co.uk
- How to help someone quit smoking: https://www.nhs.uk/better-health/quit-smoking/help-others-quit/how-to-help-someone-quit-smoking/
- Information on passive smoking: https://www.nhs.uk/live-well/quit-smoking/passive-smoking-protect-your-family-and-friends/

Additionally, you can:

- Contact your local GP if you are based in the UK
- Contact a mental health specialist or general health practitioner in your country of residence
- If you are a student at UAL, consider contacting UAL counselling and health advice by emailing studenthealth@arts.ac.uk

Contact details
If you have more questions about the study or would like to request a summary of the findings when they are ready, please contact me using the email address provided above. If this study has harmed you in any way or you wish to make a complaint about the conduct of the study, you can contact researchethics@arts.ac.uk.

Thank you once again for your contribution to the study!

APPENDIX 1: SURVEY QUESTIONS

1. **Please state your age**

2. **Do you smoke? [Select one]**
   ☐ Yes
   ☐ No

3. **Do you use e-cigarettes (vape)? [Select one]**
   ☐ Yes
   ☐ No

4. *The following questions are about your smoking habits*
   4a. **Which of the following best describes you and your smoking habits? [Select one]**
   ☐ I have never smoked
   ☐ I am a former smoker
   ☐ I smoke occasionally (social smoker)
   ☐ I smoke regularly
   4b. **Who in your immediate family smokes? [Select all the apply]**
   ☐ Parent(s)
   ☐ Sibling(s)
   ☐ Spouse/Partner
   ☐ Other (please specify): _____
   ☐ No one in my immediate family smokes
   4c. **Does anyone in your friend group smoke? [Select one]**
   ☐ Yes, most of them
   ☐ Yes, a few of them
   ☐ No, none of them
   4d. To what extent have you ever felt pressured into smoking a cigarette? [Select one]
   ☐ Never
   ☐ Rarely
   ☐ Sometimes
   ☐ Often
   ☐ Very often

5. *The following questions are about e-cigarette use*
   5a. Which of the following best describes your experience with e-cigarettes? [Select one]
   ☐ I have never used an e-cigarette
   ☐ I have tried an e-cigarette but do not use it regularly
   ☐ I use an e-cigarette occasionally (social use)
   ☐ I use an e-cigarette regularly
   5b. Who in your immediate family uses an e-cigarette? [Select all that apply]
   ☐ Parent(s)
   ☐ Sibling(s)
   ☐ Spouse/Partner
   ☐ Other (please specify): _____

☐ No one in my immediate family uses an e-cigarette

5c. Does anyone in your friend group use an e-cigarette? [Select one]

☐ Yes, most of them

☐ Yes, a few of them

☐ No, none of them

5d. To what extent have you ever felt peer pressured into using an e-cigarette? [Select one]

☐ Never

☐ Rarely

☐ Sometimes

☐ Often

☐ Very often

6.Is your e-cigarette use instead of smoking cigarettes? [Select one]

☐ Yes, I switched from smoking to e-cigarettes

☐ No, I have never been a cigarette smoker

☐ No, I used both in the past but now only use e-cigarettes

☐I do not smoke cigarettes or use an e-cigarette

7.Do you choose to use an e-cigarette as well as smoking cigarettes? [Select one]

☐ Yes, I use both regularly

☐ Yes, but I use e-cigarettes more often than cigarettes

☐ Yes, but I smoke cigarettes more often than I use e-cigarettes

☐ No, I only use e-cigarettes

☐ I do not smoke cigarettes or use an e-cigarette

Example of Images:

8. How do you feel about this outfit? [Select one]

1-10 Likert scale

9. How likely are you to buy garments displayed in this image? [Select one]

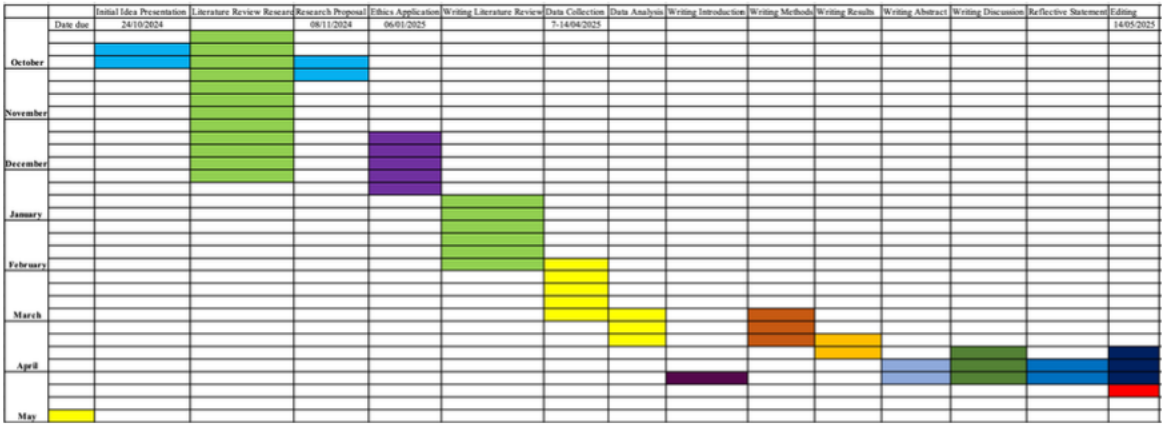
1-10 Likert scale

10. How does the portrayal of smoking influence your feelings about the garment? [Select one]
1-5 rating scale

11. How does the portrait of smoking influence your purchase intentions for the garments? [Select one]
1-5 rating scale

APPENDIX 2: EXAMPLE STUDY ADVERT

APPENDIX 3: DISSERTATION TIME PLAN


Initial Idea Presentation
Literature Review Research
Research Proposal
Ethics Application
Writing Literature Review
Data Collection
Data Analysis
Writing Introduction
Writing Methods
Writing Results
Writing Abstract
Writing Discussion
Reflective Statement
Editing
Date due
24/10/2024
08/11/2024
06/01/2025
7-14/04/2025
14/05/2025
October
November
December
January
February
March
April
May

Appendix D – Questionnaire Stimuli

Image 1
H & M, Oversized trench coat
Google Image Search
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 2
Pull and Bear, Ribbed t-shirt with buttons
https://www.pullandbear.com/gb/ribbed-tshirt-with-buttons-l03245324?cS=802&pelement=662027124
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 3
Free People, We the free firecracker flare jeans
https://www.freepeople.com/uk/shop/firecracker-flare-jeans/?category=womens-clothes&color=111&type=REGULAR&quantity=1
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 4
Free People, We the free palmer cuffed jeans
https://www.freepeople.com/uk/shop/we-the-free-palmer-cuffed-jeans/?category=womens-clothes&color=048&type=REGULAR&quantity=1
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 5
Barbour, Barbour x ERDEM Constance Waxed Jacket
https://www.barbour.com/catalog/product/view/id/180030/s/barbour-x-erdem-constance-waxed-jacket/category/78/
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 6
Abercrombie & Fitch, Tie-Front V-Neck Sweater Vest
https://www.abercrombie.com/shop/uk/p/tie-front-v-neck-sweater-vest-59063377?categoryId=614392957&faceout=model&seq=03
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 7
Nobody's Child, Leopard print quilted jacket
https://www.nobodyschild.com/products/leopard-print-quilted-jacket
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 8
Nobody's Child, Light Brown Double Breasted Trench Coat
https://www.nobodyschild.com/products/brown-double-breasted-trench-coat-o242282brn?queryID=7640863a965ea279623fbdd4f58cddc5
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 9
Cotton:On, Queens Of The Stone Age Music Boxy Graphic Tee
https://cottonon.com/UK/queens-of-the-stone-age-music-boxy-graphic-tee/2059306-05.html?dwvar_2059306-05_color=2059306-05&cgid=womens-tops&originalPid=2059306-05
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 10
Cotton:On, Haven long sleeve shirt
https://cottonon.com/UK/haven-long-sleeve-shirt/2056734-50.html?dwvar_2056734-50_color=2056734-50&cgid=womens-tops&originalPid=2056734-50
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 11
Stradivarius, Basic polyamide t-shirt
https://www.stradivarius.com/gb/basic-polyamide-tshirt-l07075116?categoryId=1020668030&colorId=400&pelement=437914018
Retrieved February 11, 2025

Cigarette

No Cigarette

Image 12
H & M, Oversized denim shirt
https://www2.hm.com/en_gb/productpage.1268199001.html
Retrieved February 11, 2025

Cigarette

No Cigarette

Appendix E: Evaluative Commentary

Descriptive Statistics

Age and Gender

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	64	18.00	25.00	20.6875	2.04610
Gender	64	2	2	2.00	.000
Valid N (listwise)	64				

Age Frequencies

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18.00	12	18.8	18.8	18.8
	19.00	7	10.9	10.9	29.7
	20.00	11	17.2	17.2	46.9
	21.00	17	26.6	26.6	73.4
	22.00	5	7.8	7.8	81.3
	23.00	5	7.8	7.8	89.1
	24.00	2	3.1	3.1	92.2
	25.00	5	7.8	7.8	100.0
	Total	64	100.0	100.0	

Country

Country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UK	62	96.9	96.9	96.9
	United States	1	1.6	1.6	98.4
	Canada	1	1.6	1.6	100.0
	Total	64	100.0	100.0	

Average survey duration

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Duration (in seconds)	64	177.00	2356.00	409.2187	376.94934
Valid N (listwise)	64				

Hypothesis 1

Two-way mixed ANOVA

Descriptive Statistics

	SmokerVaperGroup	Mean	Std. Deviation	N
Mean_feeling_Smoking	Something	5.6782	1.44565	21
	None	5.7045	1.22121	43
	Total	5.6959	1.28757	64
Mean_feeling_NonSmoking	Something	5.8931	1.55693	21
	None	6.0041	1.24975	43
	Total	5.9677	1.34668	64

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SmokerVaperGroup	.428	64	<.001	.592	64	<.001
Mean_feeling_Smoking	.062	64	.200*	.984	64	.585
Mean_feeling_NonSmoking	.120	64	.023	.944	64	.006

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
Mean_feeling_Smoking	Based on Mean	.581	1	62	.449
	Based on Median	.518	1	62	.475
	Based on Median and with adjusted df	.518	1	60.638	.475
	Based on trimmed mean	.535	1	62	.467
Mean_feeling_NonSmoking	Based on Mean	.340	1	62	.562
	Based on Median	.048	1	62	.827
	Based on Median and with adjusted df	.048	1	49.528	.827
	Based on trimmed mean	.580	1	62	.449

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + SmokerVaperGroup
Within Subjects Design: Picture1

Between-Subjects Factors

		Value Label	N
SmokerVaperGroup	1.00	Something	21
	2.00	None	43

Tests of Between-Subjects Effects

Measure: Feeling
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	3823.304	1	3823.304	1325.789	<.001	.955
SmokerVaperGroup	.133	1	.133	.046	.831	.001
Error	178.795	62	2.884			

Within-Subjects Factors

Measure: Feeling

Picture1	Dependent Variable
1	Mean_feeling_Smoking
2	Mean_feeling_NonSmoking

Tests of Within-Subjects Contrasts

Measure: Feeling

Source	Picture 1	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Picture1	Linear	1.868	1	1.868	2.916	.093	.045
Picture1 * SmokerVaperGroup	Linear	.051	1	.051	.079	.780	.001
Error(Picture1)	Linear	39.719	62	.641			

Hypothesis 2

Two-way mixed ANOVA

Descriptive Statistics

	SmokerVaperGroup	Mean	Std. Deviation	N
Mean_purchase_NonSmoking	Something	4.7626	1.68698	21
	None	5.2965	1.60304	43
	Total	5.1213	1.63721	64
Mean_purchase_Smoking	Something	4.3028	1.42519	21
	None	5.1108	1.50511	43
	Total	4.8457	1.51700	64

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SmokerVaperGroup	.428	64	<.001	.592	64	<.001
Mean_purchase_Smoking	.058	64	.200*	.987	64	.714
Mean_purchase_NonSmoking	.078	64	.200*	.990	64	.887

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
Mean_purchase_Non Smoking	Based on Mean	.287	1	62	.594
	Based on Median	.157	1	62	.694
	Based on Median and with adjusted df	.157	1	61.741	.694
	Based on trimmed mean	.253	1	62	.617
Mean_purchase_Smoking	Based on Mean	.000	1	62	.995
	Based on Median	.001	1	62	.972
	Based on Median and with adjusted df	.001	1	61.061	.972
	Based on trimmed mean	.000	1	62	.992

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + SmokerVaperGroup
Within Subjects Design: Picture1

Between-Subjects Factors

		Value Label	N
SmokerVaperGroup	1.00	Something	21
	2.00	None	43

Tests of Between-Subjects Effects

Measure: PurchaseIntention
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	2675.019	1	2675.019	660.607	<.001	.914
SmokerVaperGroup	12.703	1	12.703	3.137	.081	.048
Error	251.059	62	4.049			

Within-Subjects Factors

Measure: PurchaseIntention

Picture1	Dependent Variable
1	Mean_purchase_NonSmoking
2	Mean_purchase_Smoking

Tests of Within-Subjects Contrasts

Measure: PurchaseIntention

Source	Picture 1	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Picture1	Linear	2.939	1	2.939	3.677	.060	.056
Picture1 * SmokerVaperGroup	Linear	.530	1	.530	.663	.419	.011
Error(Picture1)	Linear	49.557	62	.799			

Hypothesis 3.1

Two-way mixed ANOVA

Descriptive Statistics

	FamilyVapingSmoking	Mean	Std. Deviation	N
Mean_purchase_Smoking	Nothing	4.7373	1.37644	30
	Something	4.9413	1.64569	34
	Total	4.8457	1.51700	64
Mean_purchase_NonSmoking	Nothing	5.2745	1.63635	30
	Something	4.9861	1.65045	34
	Total	5.1213	1.63721	64

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Mean_purchase_Smoking	.058	64	.200*	.987	64	.714
Mean_purchase_NonSmoking	.078	64	.200*	.990	64	.887
FamilyVapingSmoking	.356	64	<.001	.635	64	<.001

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
Mean_purchase_Smoking	Based on Mean	.701	1	62	.406
	Based on Median	.671	1	62	.416
	Based on Median and with adjusted df	.671	1	59.811	.416
	Based on trimmed mean	.711	1	62	.402
Mean_purchase_NonSmoking	Based on Mean	.004	1	62	.950
	Based on Median	.003	1	62	.955
	Based on Median and with adjusted df	.003	1	61.997	.955
	Based on trimmed mean	.003	1	62	.953

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + FamilyVapingSmoking
Within Subjects Design: Picture1

Between-Subjects Factors

		Value Label	N
FamilyVapingSmoking	1.00	Nothing	30
	2.00	Something	34

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	3168.142	1	3168.142	744.864	<.001	.923
FamilyVapingSmoking	.057	1	.057	.013	.908	.000
Error	263.706	62	4.253			

Within-Subjects Factors

Measure: MEASURE_1

Picture1	Dependent Variable
1	Mean_purchase_Smoking
2	Mean_purchase_NonSmoking

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Picture 1	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Picture1	Linear	2.699	1	2.699	3.475	.067	.053
Picture1 * FamilyVapingSmoking	Linear	1.932	1	1.932	2.488	.120	.039
Error(Picture1)	Linear	48.155	62	.777			

Hypothesis 3.2

Two-way mixed ANOVA

Descriptive Statistics

	FriendSmokingVaping	Mean	Std. Deviation	N
Mean_purchase_Smoking	Nothing	5.1489	1.30832	18
	Something	4.7270	1.58870	46
	Total	4.8457	1.51700	64
Mean_purchase_NonSmoking	Nothing	5.4649	1.27689	18
	Something	4.9868	1.75243	46
	Total	5.1213	1.63721	64

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Mean_purchase_Smoking	.058	64	.200*	.987	64	.714
Mean_purchase_NonSmoking	.078	64	.200*	.990	64	.887
FriendSmokingVaping	.451	64	<.001	.563	64	<.001

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
Mean_purchase_Smoking	Based on Mean	.984	1	62	.325
	Based on Median	.940	1	62	.336
	Based on Median and with adjusted df	.940	1	60.819	.336
	Based on trimmed mean	.941	1	62	.336
Mean_purchase_NonSmoking	Based on Mean	2.567	1	62	.114
	Based on Median	2.541	1	62	.116
	Based on Median and with adjusted df	2.541	1	59.939	.116
	Based on trimmed mean	2.557	1	62	.115

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + FriendSmokingVaping
Within Subjects Design: Picture1

Between-Subjects Factors

		Value Label	N
FriendSmokingVaping	1.00	Nothing	18
	2.00	Something	46

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	2672.974	1	2672.974	641.044	<.001	.912
FriendSmokingVaping	5.240	1	5.240	1.257	.267	.020
Error	258.523	62	4.170			

Within-Subjects Factors

Measure: MEASURE_1

Picture1	Dependent Variable
1	Mean_purchase_Smoking
2	Mean_purchase_NonSmoking

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Picture 1	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Picture1	Linear	2.145	1	2.145	2.656	.108	.041
Picture1 * FriendSmokingVaping	Linear	.020	1	.020	.025	.874	.000
Error(Picture1)	Linear	50.067	62	.808			

Hypothesis 4

Friedman Test

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Time_NoCigarette	64	12.2123	5.70821	5.47	26.92
Time_Cigarette	64	12.1768	5.32238	5.64	30.22
SmokerVaperGroup	64	1.6719	.47324	1.00	2.00

Related-Samples Friedman's Two-Way Analysis of Variance by Ranks Summary

Total N	64
Test Statistic	96.281
Degree Of Freedom	2
Asymptotic Sig.(2-sided test)	<.001

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distributions of SmokerVaperGroup, Time_Cigarette and Time_NoCigarette are the same.	Related-Samples Friedman's Two-Way Analysis of Variance by Ranks	<.001	Reject the null hypothesis.

a. The significance level is .050.

b. Asymptotic significance is displayed.

Pairwise Comparisons

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
SmokerVaperGroup-Time_NoCigarette	-1.453	.177	-8.220	<.001	.000
SmokerVaperGroup-Time_Cigarette	-1.547	.177	-8.750	<.001	.000
Time_NoCigarette-Time_Cigarette	.094	.177	.530	.596	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .050.
a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Independent Samples T-tests

Group Statistics

	SmokerVaperGroup	N	Mean	Std. Deviation	Std. Error Mean
Time_Cigarette	Something	21	12.0654	4.85165	1.05872
	None	43	12.2313	5.59227	.85281
Time_NoCigarette	Something	21	11.3309	3.98746	.87013
	None	43	12.6428	6.38169	.97320

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Time_Cigarette	Equal variances assumed	.193	.662	-.116	62	.454	.908	-.16586	1.42817	-3.02072	2.68901
	Equal variances not assumed			-.122	45.294	.452	.903	-.16586	1.35947	-2.90349	2.57178

Group Statistics

	SmokerVaperGroup	N	Mean	Std. Deviation	Std. Error Mean
Time_NoCigarette	Something	21	11.3309	3.98746	.87013
	None	43	12.6428	6.38169	.97320

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Time_NoCigarette	Equal variances assumed	7.303	.009	-.861	62	.196	.392	-1.31185	1.52278	-4.35584	1.73213
	Equal variances not assumed			-1.005	58.066	.160	.319	-1.31185	1.30547	-3.92497	1.30126